



Supporting Information

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Rapid Affinity-Based Fingerprinting of 14-3-3 Isoforms Using A Combinatorial Peptide Microarray

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1 Materials and Methods

1.1 *Materials.* All chemicals were purchased at the highest grade and used without further purification, unless otherwise noted. Fmoc-amino acids, HOBT, HBTU, TIS, TFA were from GL Biochem (China). Piperidine was from Merck (USA). HPLC profiles and ESI mass spectra were acquired in the positive or negative mode by using a Shimadzu IT-TOF. Analytical and semi-preparative RP-HPLC separations were performed on Phenomex C₁₈ analytical (150 x 3.0 mm) and semi-preparative (250 x 21.2 mm) columns, respectively, using a Shimadzu Prominence HPLC system equipped with a Shimadzu SPD-20A detector. Eluents A (0.1 % TFA/acetonitrile) and B (0.1 % TFA/water) were used as the mobile phases. Pin1 and 14-3-3 isoforms were expressed and purified in house, as previously described using standard molecular biology/protein expression techniques.^{1,2} Plain glass slides were purchased from Sigma Aldrich (USA), and modified to generate the corresponding avidin-coated surface as previously described.³ Pro-Q[™] Diamond dye was bought from Invitrogen (USA). All seven bacterial expression constructs are commercially available (www.addgene.org) (**Table S1**).

1.2 *Microarray preparation.* For details, please refer to reference 1. All peptide stocks were prepared in an 1:1 DMSO/PBS spotting solution (to 1 mM final concentration), and were distributed in 384-well plates. All peptides were shown to be completely soluble in this spotting solution. Previously, we have shown that 500 μM spotting concentration of peptides was sufficient to completely saturate available biotin-binding surface. Slides were spotted on an ESI SMA arrayer (Ontario, Canada) with the printhead installed with 8 Stealth SMP8B Microspotting pins (Telechem, U.S.A.). Spots generated were of approximately 350 μm diameter and were printed with a spot-spot spacing of 450 μm. The pins were rinsed in between samples using two cycles of wash (for 10

s) and sonication (for 10 s) in reservoirs containing 70 % ethanol followed by drying under reduced pressure (for 10 s). The slides were allowed to stand for 1 h on the printer platform and stored at 4 °C until use. Before incubation with the labeled protein, the slides were rinsed with TBS (pH 7.4) for 20 min and blocked with TBS-containing 1 % BSA for 1 h. For studies with the 1000-member peptide library, all 1000 peptides were spotted on the same slide in duplicate. For the dual-color and K_D experiments, a new microarray was fabricated where up to 8 identical subarrays were created on the same slide using the same set of selected peptides.

1.3 Pro-QTM staining and detection. For details, please refer to reference 1. Pro-QTM staining was routinely carried out on spotted slides to ensure the consistency and quality of the slides. The slide was washed with H₂O and stained with Pro-QTM Diamond dye for 1 h at room temperature. Subsequently the slide was destained with a solution of 20 % acetonitrile in sodium acetate (pH = 4) for 0.5 h and visualized with the microarray scanner under the Cy3 channel (λ_{Ex} = 548 nm; λ_{Em} = 595 nm). The result of a representative example was shown in **Figure S2**; it clearly indicates that most of the 1000-member phosphorylated peptides (> 99 %) were uniformly immobilized and gave consistent/uniform fluorescent signals, and therefore is well suited for accurate detection of relative binding affinity/specificity against different 14-3-3 isoforms.

1.4 Protein expression/purification. The Pin1 protein was obtained as previously described.¹ GST-tagged fusions of human β , η , σ , θ , rat ϵ , γ and bovine ζ 14-3-3 plasmid constructs were obtained from Addgene (Plasmid IDs: 13276, 13277, 11944, 13281, 13279, 13280 and 13278, respectively). All expression constructs were transformed into an E. coli. BL21(DE3) strain. Overnight cultures were diluted 1:100 in LB media supplemented with 100 μ g/mL of ampicillin and grown at 37 °C. At OD₆₀₀~0.6-0.8, expression was induced by addition of 0.1 mM of IPTG (isopropyl-b-D thiogalactopyranoside) and cultures were grown further at 26 °C overnight.² The fusion proteins were soluble, expressed in high yields and the expression was verified by Coomassie blue staining and immunoblot analysis with anti-GST antibody (Amersham Biosciences). After cell harvest and lysis (at pH 7.4, 20 mM tris-HCl, 150 mM NaCl, 0.2 mM DTT) by sonication (6X pulses of 15 s each at half maximal power, on ice), the solution was clarified by centrifugation at 10 000 g, 30 min, 4 °C and loaded onto a column containing 200 μ L of Glutathione Sepharose resin (Amersham Biosciences) pre-equilibrated with a column buffer (140 mM NaCl, 2.7 mM KCl, 10 mM Na₂HPO₄, 1.8 mM KH₂PO₄, pH 7.4). Following incubation for 20 min at 4 °C, the resin was washed 5 times with the column buffer and the fusion was eluted with elution buffer (10 mM Glutathione, 50 mM Tris-HCl, pH 8.0). Fractions containing the desired fusion protein were pooled and dialysed into the column buffer using Amicon columns, and store at -20 °C. Protein concentration was determined using the Bradford protein assay (Bio-Rad). Protein purity was determined by separation on a 15 % SDS-PAGE gel.

1.5 Protein labeling and screening on the peptide microarray. Protein samples were minimally labeled with either Cy3 or Cy5 N-hydroxysuccinimide ester (Amersham, G.E. Healthcare, USA) for 1 h on ice, following the manufacturer's protocols and our previously published procedures.³ The unreacted dye was quenched with a 10-fold molar excess of hydroxylamine for a further 1 h. The excess dye was further removed with a Sephadex G-25 spin column (Amersham, G.E. Healthcare, USA). After analysis by DED-PAGE gel to ensure successful labeling and purity (see **Figure S1** for a representative example), the labeled protein was reconstituted in a final buffer volume of 80 μ l TBS (pH 7.4) containing 1% bovine serum albumin (BSA). In a standard microarray experiment, the labeled protein (2 μ M; 50 μ L) was applied under coverslip to the array. In a dose-dependent experiment for K_D measurements, various concentrations of the protein (5000 nM to 50 nM) were applied to different subarrays on the same slide, as previously described.¹ For dual-color screening experiments, an equal amount of a Cy3-labeled protein and another Cy5-labeled protein was mixed and applied together to the slide. The samples were incubated with the array in a humidified chamber for 2 h at room temperature, before repeated rinses with TBS + 0.05 % Tween 20, typically 2 x 10 min washes with gentle shaking. Slides were scanned using an ArrayWoRx microarray scanner installed with the relevant filters (Cy3: $\lambda_{ex/em}$ = 548/595 nm; Cy5: $\lambda_{ex/em}$ = 633/685 nm).

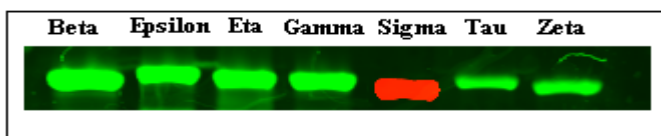


Figure S1. SDS-PAGE of seven 14-3-3 isoforms labeled with Cy3 (in Green) or Cy5 dye (in Red).

1.6 Data extraction and analysis. Microarray data was extracted using the ArrayWoRx software. Values from duplicated points were background subtracted and averaged (Duplicated spots with a standard deviation > 0.2 were rejected). The dataset was presented as colored heatmaps, using the Treeview software (<http://rana.lbl.gov/EisenSoftware.htm>). Position specific scoring matrix analysis was performed using the software developed by Stephen Shaw (sshaw@nih.gov) and obtained and used with permission. Other data analysis was carried out with Microsoft Excel. The dataset was subjected to correlation analysis to compare the correlation across seven 14-3-3 isoforms (Pearson correlation, $r > 0.83$, across all 1000 datapoints; **Figure S6**). Venn diagrams were generated to identify the potent binders across seven 14-3-3 isoforms, using the Venn Diagram Generator (<http://www.pangloss.com/seidel/Protocols/venn.cgi>). The complete dataset obtained is provided as a supplementary Microsoft Excel file.

1.7 K_D analysis of selected high binders. Selected and/or reconstituted peptides were spotted onto another slide where up to 8 identical subarrays were generated on the same microarray, so as to allow consistent/uniform screening and comparison of different 14-3-3 isoforms, or different

concentrations of the same 14-3-3 isoform (e.g. Sigma), to be carried out concurrently on the same platform. Using dose-dependent experiments, we extracted binding data of 14-3-3 σ against eight potential peptide binders, as well as a 14-3-3 positive control peptide and two reconstituted full-length peptides. The corresponding K_D was generated by fitting the data to the following equation, under the assumption that equilibrium is achieved during the incubation period.³

$$\text{Observed fluorescence of } x = \frac{[\text{Maximum fluorescence, } x] \times [\text{Protein concentration}]}{K_D + \text{Protein concentration}}$$

Saturation dynamics observed when plotting *Observed fluorescence* against the applied *Protein concentration* were then fitted to the above equation using the Graph pad Prism software v.4.03 (GraphPad, San Diego, USA) revealing the binding dissociation constant, K_D .

1.8 K_D analysis for B1 using SPR against seven different 14-3-3 isoforms. Surface plasmon resonance measurements were performed on a Biacore 3000 instrument (Biacore AB, Uppsala, Sweden). CM-5 chips were functionalized with 14-3-3 proteins using standard activation and coupling procedures. Briefly, chips were activated with a 1:1 mixture of 0.1 M NHS and 0.4 M EDC for 8 minutes at a flow rate of 10 μ l/min. Proteins were immobilized at 12,000-18,000 RUs and quenched with 1 M of Ethanolamine, pH 8. An adjacent chip flow cell was left unimmobilized for use as a reference for subtraction. Seven different concentrations of sigma-specific peptide **B1** (LFGpSLLR) was applied in duplicate, in a 3-fold dilution series ranging from 10 μ M to 41 nM. A buffer comprising 10 mM of HEPES (pH 7.4), 150 mM of NaCl and 0.005% of Tween 20 was used under a flow rate of 30 μ l/min for the kinetic binding protocol. The chip surface was regenerated between samples with injections of 0.1 M of glycine, 1 M of NaCl (pH 3). This provided reproducible binding profiles. [We also attempted to immobilize **B1** on the chip and run through protein, however this attempt failed because of non-specific interactions of 14-3-3 proteins with the CM-5 chip that could not be overcome by using higher concentrations of Tween in the running buffer]. The resulting data was analyzed using the BiaEvaluation software (Biacore AB, Uppsala, Sweden) under the 1:1 (Langmuir) binding model. The corresponding binding rate constants (K_a and K_d) as well as the K_D were obtained from the best fits. Since the highest concentration of the peptide used in our experiments was 10 μ M, any fitted K_D values which were higher than 10 μ M would be deemed inaccurate, and simply considered as “> 10 μ M”). See **Figure S11** for details. Proper maintenance was performed to ensure that the instrument was kept in good running condition. The integrated flow cell and fluidic system was regularly washed, sanitized and desorbed using standard cleansing reagents, as recommended.

1.9 K_D analysis using fluorescent polarization experiments. Fluorescent polarization experiments were performed by incubating a fixed low concentration of fluorescently labeled peptides (TMR-

GG-peptides, see **Scheme S1**) with serial-diluted 14-3-3 proteins in a 384-well black polypropylene plate, as previously reported.⁴ The incubation time of peptide and protein was 1 h to ensure it reached the binding equilibrium with the lowest protein concentration. The fluorescence readings were taken with a fluorescence plate reader (Tecan, USA) installed with 2 pairs of polarizers (λ_{Ex} : 540 nm; λ_{Em} : 590 nm). The data obtained was fitted to the following equation:

$$FP = FP_0 + FP_{\text{max}} \frac{[14-3-3]}{K_D + [14-3-3] + [pep]} - \frac{\sqrt{(K_D + [14-3-3] + [pep])^2 - 4[pep][14-3-3]}}{2[pep]}$$

1.10 Dual-color labeling and identification of 14-3-3 sigma selective peptide motifs. A new microarray was fabricated where up to 8 identical subarrays were created on the same slide using the same set of selected peptides (**Figure 2b** in maintext). Equal amounts of Cy5-labeled sigma (indicted in **RED**) and another Cy3-labeled 14-3-3 isoform (indicated in **Green**) were mixed before being applied to the microarray. In total, 7 subarrays (σ/σ as control, σ/β , σ/ϵ , σ/η , σ/γ , σ/τ , σ/ζ) were screened simultaneously on the same slide. The resulting slide was scanned under both Cy3 and Cy5 channels. Data were extracted and the selectivity score was obtained from $\text{Log}_2(\text{Cy5-sigma}/\text{Cy3-isoform})$. A positive $\text{log}_2(\text{ratio})$ indicates higher binding preference for 14-3-3 δ , a negative $\text{log}_2(\text{ratio})$ indicates higher binding preference to the isoform. The results were summarized in **Figure S10, Figure 2b & 2c**. As shown in **Figure 2b** with Cy5-sigma/Cy3-sigma control experiments (first microarray panel), all spots showed up as orange spots, with a $\text{Log}_2(\sigma/\sigma) = \sim 0$ across different spots on the same slide, indicating the clear advantage of the dual-color approach for high-throughput identification of sigma-specific peptide motifs.

2 Peptide Synthesis

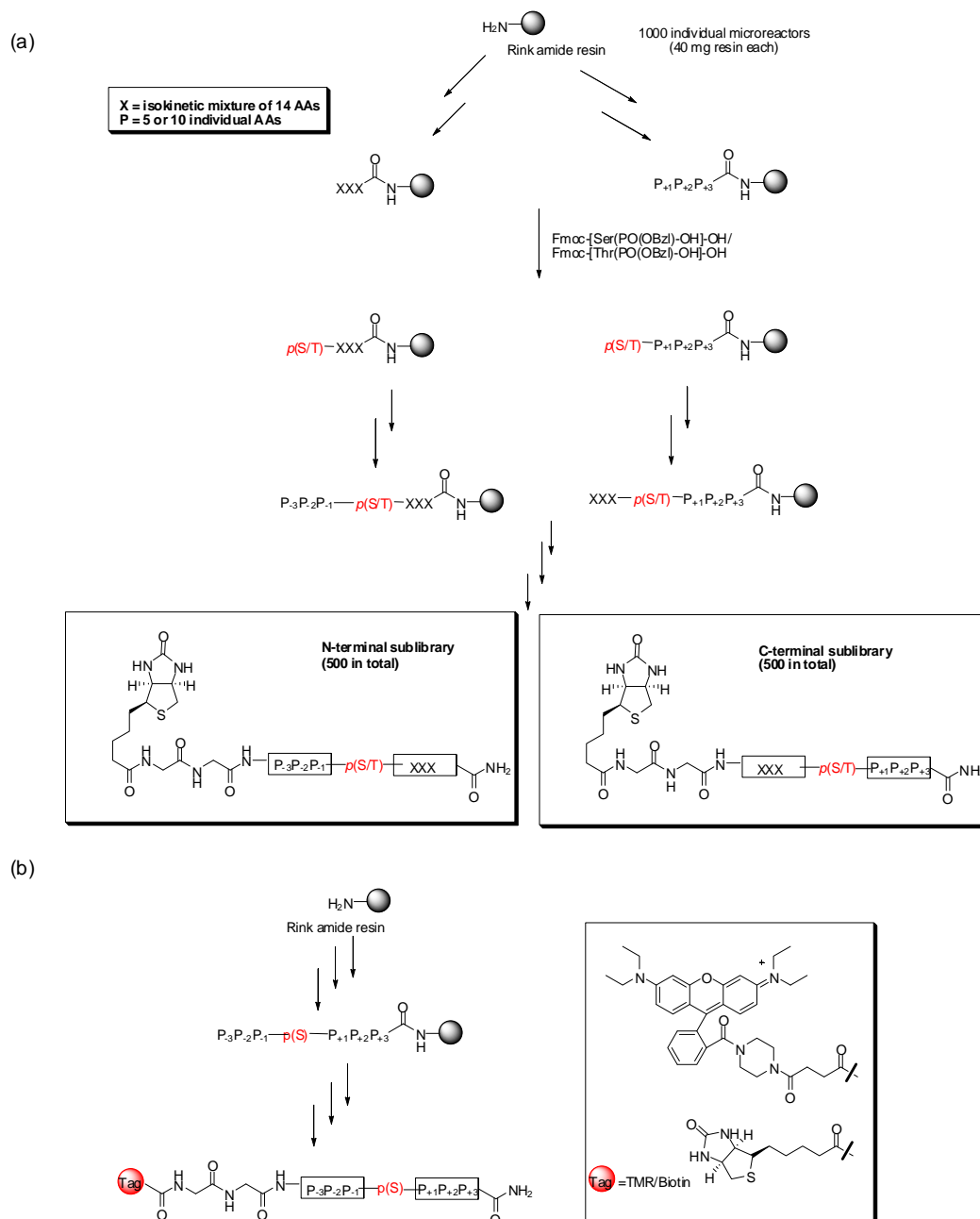
The 1000-member phosphopeptide library was synthesized in two different sublibraries (N- and C-terminal libraries) by using the standard Fmoc strategy combined with IRORITM technology (Scheme S1 & Table S2).³ The peptide sequences are the followings:

N-terminal sublibrary: (Biotin)-GG-P₃P₂P₁-*p*(S/T)-X₊₁X₊₂X₊₃-CONH₂

C-terminal sublibrary: (Biotin)-GG-X₃X₂X₁-*p*(S/T)-P₊₁P₊₂P₊₃-CONH₂

where the coupling of X was carried out using an isokinetic mixture of 14 different Fmoc-protected amino acids containing the following molar ratio: Fmoc-Ala-OH, 0.75; Fmoc-Asp(OtBu)-OH, 1.2; Fmoc-Glu(OtBu)-OH, 1; Fmoc-Phe-OH, 0.6; Fmoc-Gly-OH, 0.7; Fmoc-His(Trt)-OH, 0.78; Fmoc-Ile-OH, 2.29; Fmoc-Lys(Boc)-OH, 1; Fmoc-Leu-OH, 0.77; Fmoc-Asn(Trt)-OH, 1.2; Fmoc-Pro-OH, 0.86; Fmoc-Gln(Trt)-OH, 1; Fmoc-Arg(Pbf)-OH, 1.1; Fmoc-Val-OH, 1.8. For the coupling of phosphoserine and phosphothreonine, *p*(S/T), an 1:1 molar ratio mixture of Fmoc-Ser[PO(OBzl)-OH]-OH and Fmoc-Thr[PO(OBzl)-OH]-OH was used. For P₊₁ and P₊₂ positions, a total of 10 different amino acid building blocks (R, E, F, L, Q, A, G, V, K, P), were individually used in a predefined manner. For P₊₃ positions, a total of 5 different amino acid building blocks (R, E, F, L, P) were used. In this way, a total of 500 different peptide sequences (10x10x5) were generated for each sublibrary, giving a total of 1000 different peptides with both N- and C-terminal libraries. Either (Biotin)-GG or TMR-GG was attached at N-terminus of each peptide for microarray immobilization and FP experiments, respectively. A total of 1000 microreactors were used throughout the synthesis. Each microreactor contains around 40 mg of rink amide resin and a unique Rf tag for sorting purpose. The microreactors were swelled in HPLC-grade DMF for 1 h before the solvent was decanted. The Fmoc group was removed by treatment of 20 % piperidine (in DMF) for 1 h at RT. Subsequently, the resin was washed extensively with cycles of DMF and DCM. The microreactors after piperidine deprotection were dried, sorted and distributed into ten bottles and each bottle was added a solution of preactivated mixture containing the Fmoc amino acid (R, E, F, L, Q, A, G, V, K, P, *p*(S/T) or X; 4.0 eq), HOBt (4.0 eq), HBTU (4.0 eq) and DIEA (8.0 eq) in DMF (the mixture was premixed 10 min prior to addition to the microreactor). The coupling reactions were carried out for 8 h at RT with constant shaking. At the end, the microreactors were collected and washed thoroughly with several cycles of DMF and DCM. Any unreacted resin was capped with a solution of Ac₂O (10 eq), DIEA (20 eq) in DCM (200 mL) for 2 h at RT, followed by extensive wash with DCM and DMF. The cycle was repeated with a suitable amino acid. Biotin/TMR was coupled to the N-terminus of each peptide using the same HOBt/DIC/DIEA activation method with an extended coupling cycle (24 h at RT). After the synthesis was completed, the 1000 microreactors were collected, washed thoroughly (with DMF, DCM and MeOH) before drying under high vacuum for 2 h at RT. The microreactors were then decoded and cleaved with a cleavage cocktail (95% TFA, 2.5% TIS, 2.5% H₂O; 1.2ml/reactor) for 4 h at RT. Subsequently the samples were concentrated *in vacuo* (Genevac, USA) to remove most of the cleavage cocktail (>80%), followed by addition of cold ether (chilled to -20 °C) and kept in a -20 °C

freezer overnight. The precipitated peptides were collected, and washed with more cold ether, then dried thoroughly *in vacuo*. The resulting peptide solids were dissolved in 1 ml DMSO and stored at $-80\text{ }^{\circ}\text{C}$ in 96-deepwell plates as master stocks for future use. Individual reconstituted peptides were prepared similarly and further purified by semi-preparative HPLC where applicable.



3 Results and Discussion

3.1 *14-3-3 isoforms and the 1000-member peptide library used in the study*

Table S1. The classification and sources of seven different 14-3-3 mammalian isoforms used in our study.

14-3-3 Protein	Source	Classification	Use in this study
Beta	H. sapiens (human)	Protein Ser/Thr	✓
Epsilon	R. norvegicus (rat)	Protein Ser/Thr	✓
Eta	H. sapiens (human)	Protein Ser/Thr	✓
Gamma	R. norvegicus (rat)	Protein Ser/Thr	✓
Sigma	H. sapiens (human)	Protein Ser/Thr	✓
Tau	H. sapiens (human)	Protein Ser/Thr	✓
Zeta	Bos Taurus (cow)	Protein Ser/Thr	✓

Table S2. Design of the 1000-member, partially degenerated peptide library. X represents positions where an isokinetic mixture of 14 different Fmoc amino acids were used. P represents the position where a predefined Fmoc amino acid was used.

Library Size	P _{+/1}	P _{+/2}	P _{+/3}
500 C-terminal sub-library (Biotin)-GG-X ₃ X ₂ X ₁ -p(S/T)-P ₁ P ₂ P ₃	10 natural amino acids R, E, F, L, Q, A, G, V, K, P	10 natural amino acids R, E, F, L, Q, A, G, V, K, P	5 natural amino acids R, E, F, L, P
500 N-terminal sub-library (Biotin)-GG-P ₃ P ₂ P ₁ -p(S/T)-X ₁ X ₂ X ₃	10 natural amino acids R, E, F, L, Q, A, G, V, K, P	10 natural amino acids R, E, F, L, Q, A, G, V, K, P	5 natural amino acids R, E, F, L, P

3.2 ProQ™ and Pin1 screening against the 1000-member peptide microarray

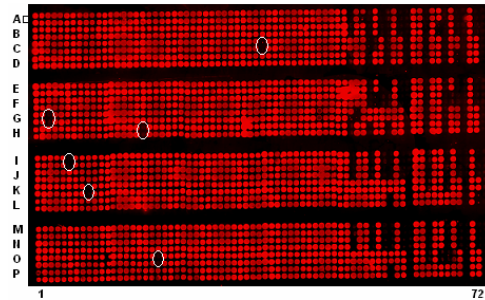
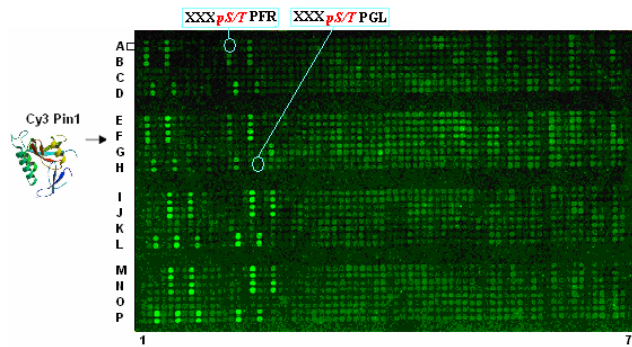


Figure S2. The 1000 peptides were spotted in duplicate (vertically), washed and treated with ProQ and imaged under Cy3 channel (false colored in red). The image shows that most spots (> 99 %) located on the array were spotted uniformly and consistently. Misprinted spots are identified with white circles (6 out of 1000), and rejected without further consideration. For spotting format, please refer to the Supplementary Excel Table.

(a)



(b)

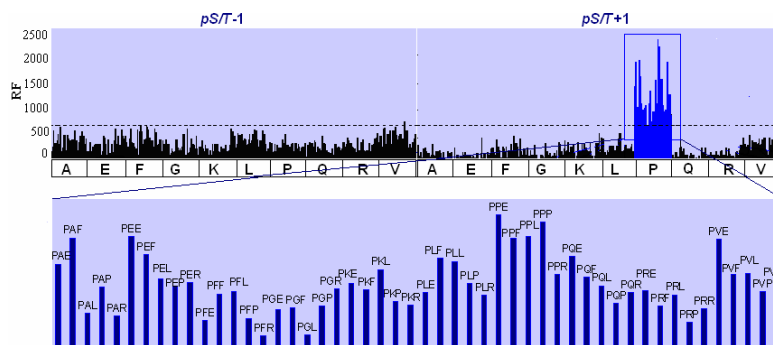


Figure S3. The 1000-member peptide microarray was screened against Cy3-labeled Pin1. Results are summarized in **Table S6** in the Supplementary Excel Table. (a) Microarray image displaying the specificity and sensitivity of the library against Pin1 protein – it binds much more strongly to 48 out of the 50 peptides bearing Pro at the +1 position. The remaining two Pro₊₁ peptides were highlighted (in circles). (b) Relative fluorescence intensity (RF) of the spots generated from the 1000-member peptide microarray. The peptides were sorted by the P₋₁ and P₊₁ AAs (x-axis). The 50 Pro₊₁ peptides (biotin-GG-XXX-p(S/T)-Pro-P₊₂P₊₃) were shown in the zoomed graph (only the P₊₁P₊₂P₊₃ sequences were shown for clarity).

3.3 Screening of seven Cy3-labeled 14-3-3 proteins against the 1000-member peptide microarray

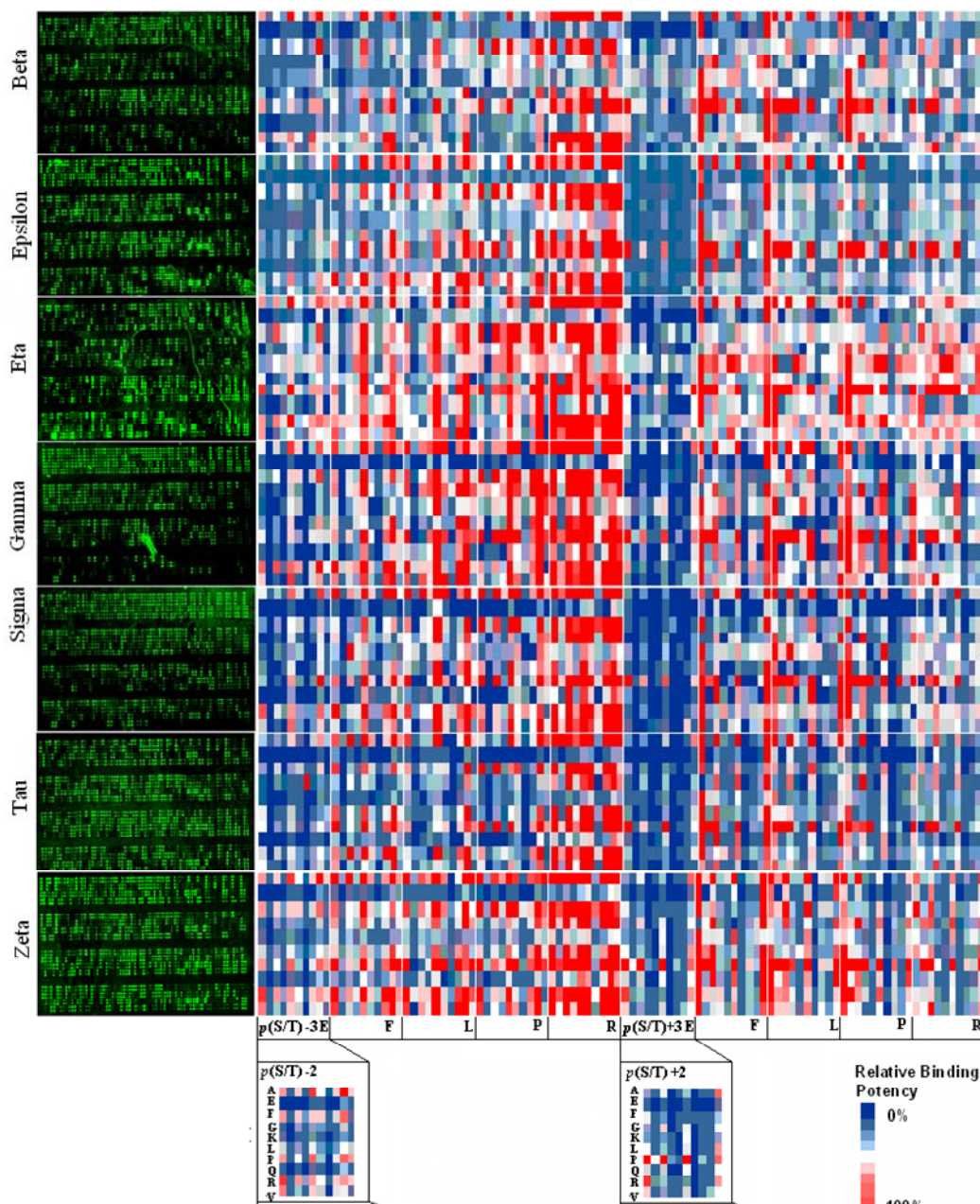
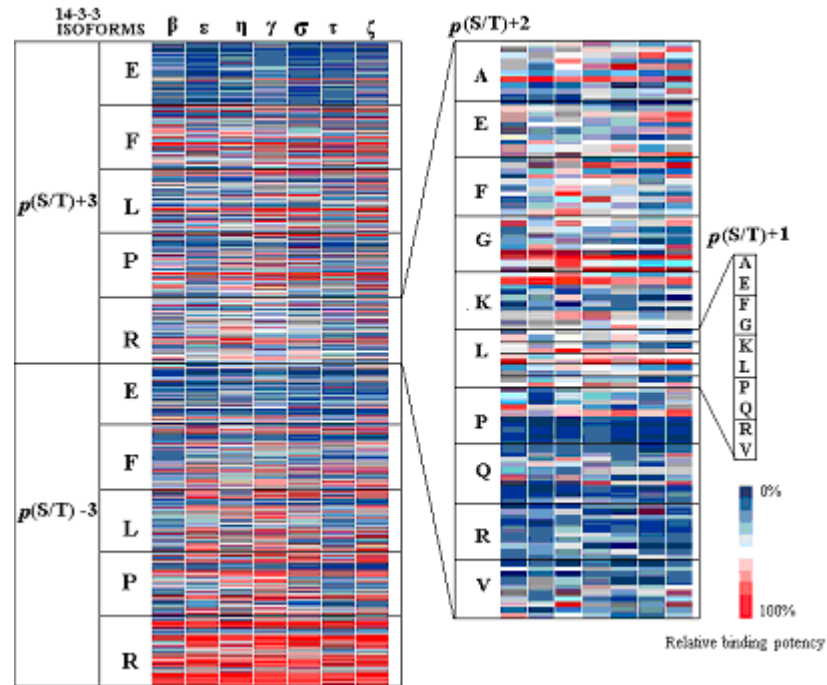


Figure S4. Images of the 1000-member peptide library screened against 7 different Cy3-labeled 14-3-3 isoforms (left), and the corresponding heat maps (right). The spotting format was the same as in **Figure S2 & S3**. For each isoform, a total of 10 sub-heat maps were generated by fixing the P_{+3} positions first with their respective AAs (5 for P_{-3} and 5 for P_{+3}). Within each sub-heat map (zoomed graphs), data were arranged by their ten P_{+2} (vertical) and ten P_{+1} (horizontal) amino acids, respectively. The same results were presented in a combined heat map in **Figure S5a** for easy comparison. Above results were generated from data provided in Supplementary Excel Table (**Table S3**).

3.4 Data analysis of the 1000-member library against seven 14-3-3 isoforms.

(a)



(b)

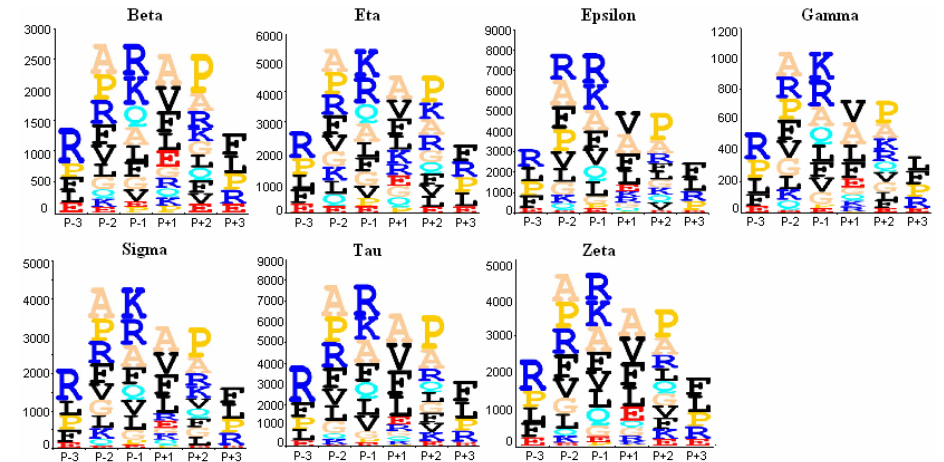


Figure S5. (a) Combined heat map of the 1000-member peptide library against seven Cy3-labeled 14-3-3 isoforms. Data were organized in the order of $P_{+3} > P_{+2} > P_{+1}$. The heat map readily revealed both the potency and specificity of any member of the library against any of the seven 14-3-3 proteins. (b) Position specific scoring matrix (PSSM) representing averaged binding affinity across P_{+1} , P_{+2} and P_{+3} positions for each amino acid. The height of each letter represents the weighted contribution of that residue to overall peptide binding. The side chains are colored according to their properties: hydrophobic/aromatic (black), acidic (red), basic (blue), polar (cyan), hydrophilic (green), and small (beige). Results are summarized in **Table 1** in the maintext

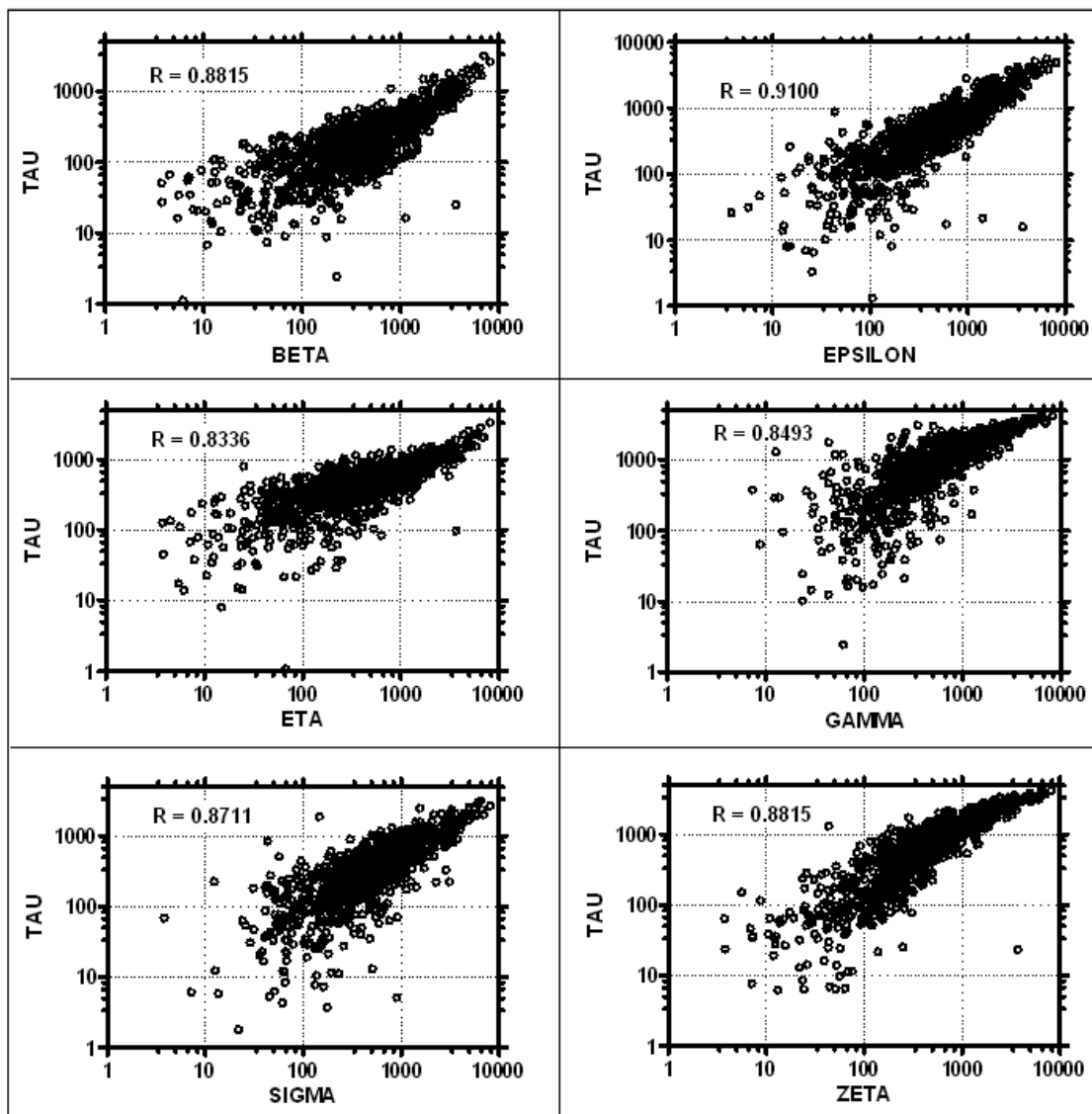


Figure S6. Data obtained from the 1000-member peptide library screened against the seven 14-3-3 isoforms (e.g. **Figure S4 & S5a**) were further analyzed by Scatter plot to assess their binding homology. For illustration purpose, 14-3-3 Tau was used to compare with the other six 14-3-3 isoforms. A good Pearson coefficient ($r > 0.8$) was obtained in all cases, confirming the highly conserved binding patterns of the seven 14-3-3 isoforms against the 1000-member peptide library. This agrees well with previous studies carried out by Yaffe *et al.*²

3.5 Data analysis of the top-50 binders against each 14-3-3 from each N- and C-terminal sublibraries.

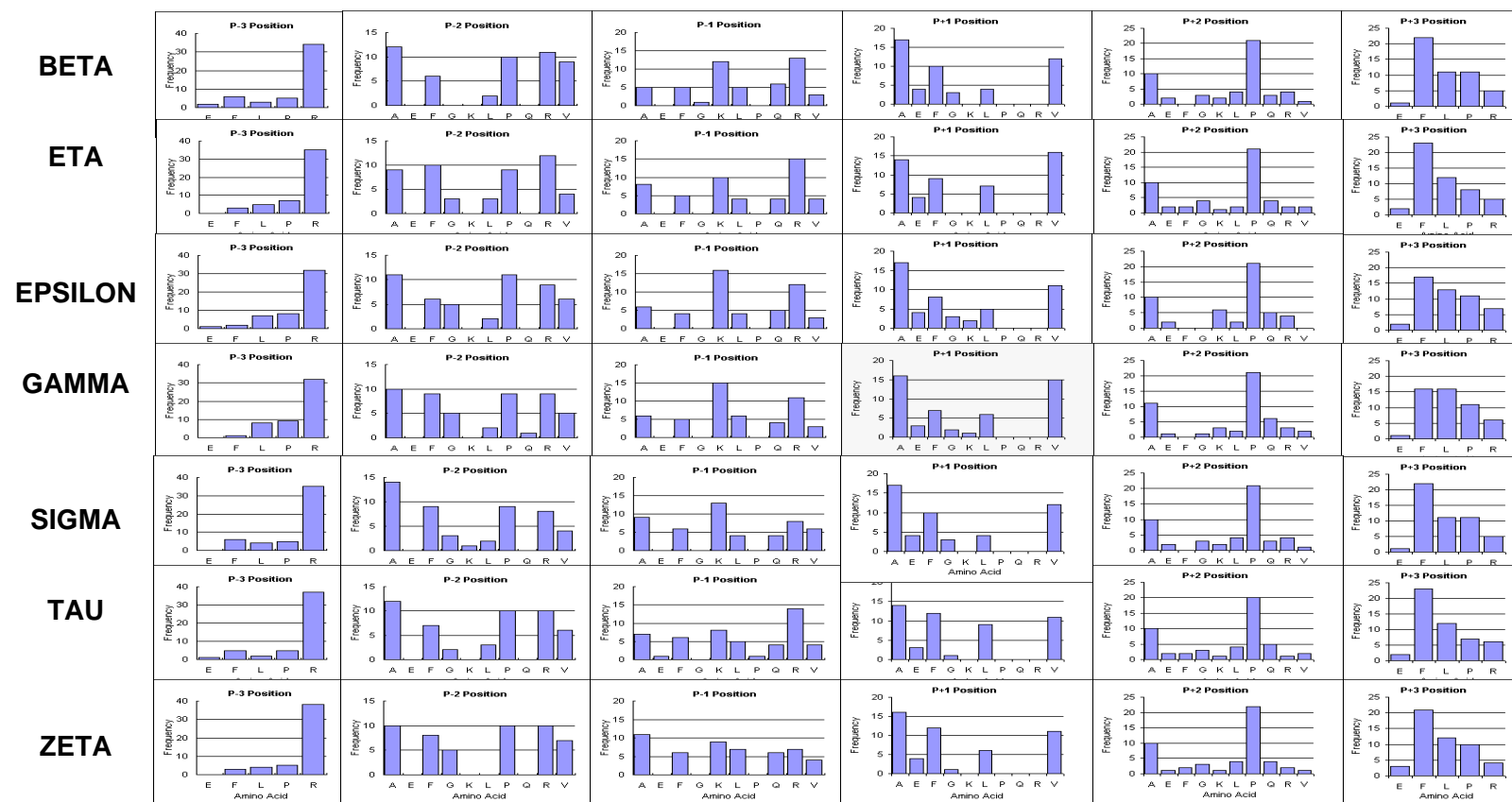


Figure S7. Relative binding potency of seven 14-3-3 isoforms across the six permutated positions (left to right: in the order of P₋₃, P₋₂, P₋₁, P₊₁, P₊₂ & P₊₃), as obtained from the analysis of top-50 hits from both the N- and C-terminal sublibraries against each 14-3-3 isoform (listed in **Table S4** in the Supplementary Excel Table). Each bar represents the frequency of occurrence of a particular amino acid in the top 50 binders from each of the two sublibraries. Results again confirmed that the seven 14-3-3 isoforms are highly homologous, and are summarized in **Table 1** in the maintext.

3.6 Data analysis of consensus hits against all seven 14-3-3 isoforms identified from top-100 binders.

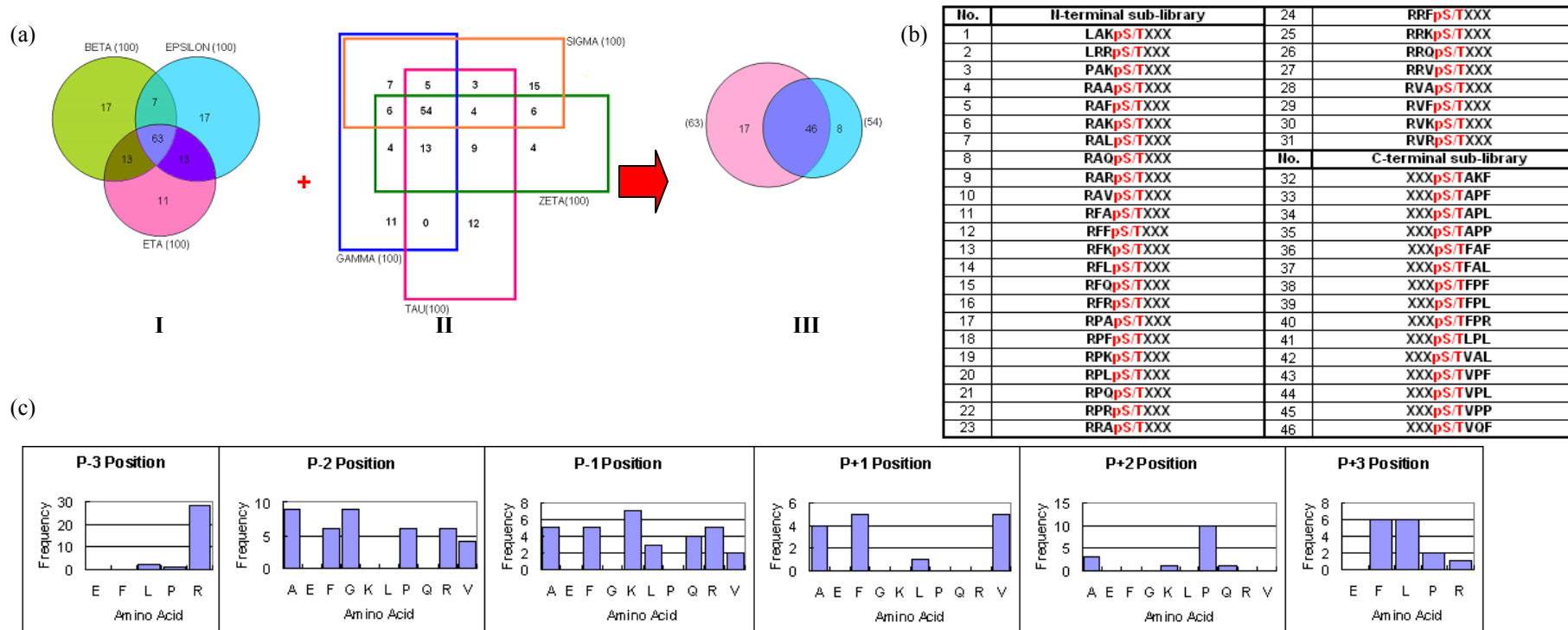


Figure S8. Relative binding potency of consensus hits against all seven 14-3-3 isoforms, identified from the top-100 list (obtained by analysis of top-100 hits from the 1000-member library, irrespectively of N- or C-terminus) against each 14-3-3; see Supplementary Excel Table). (a) From the top-100 hits against every 14-3-3 (7 x 100 potential sequences in total), Venn diagram was used to filter and identify consensus sequences present in all seven isoforms, giving a total of 46 unique peptide motifs (**I** (Beta + Epsilon + Eta) = 63 consensus sequences; **II** (Gamma + Sigma + Tau + Zeta) = 54 consensus sequences; **III** (**I** + **II**) = 46). (b) List of the 46 consensus top binders against all seven 14-3-3 isoforms. (c) Bar graph representation of (b), indicating the relative binding potency across the six permuted positions (left to right: P₋₃, P₋₂, P₋₁, P₊₁, P₊₂ & P₊₃). Each bar represents the frequency of occurrence of a particular amino acid among the 46 consensus top binders. Results are summarized in **Table 1** in the maintext.

3.7 K_D analysis of selected peptide motifs.

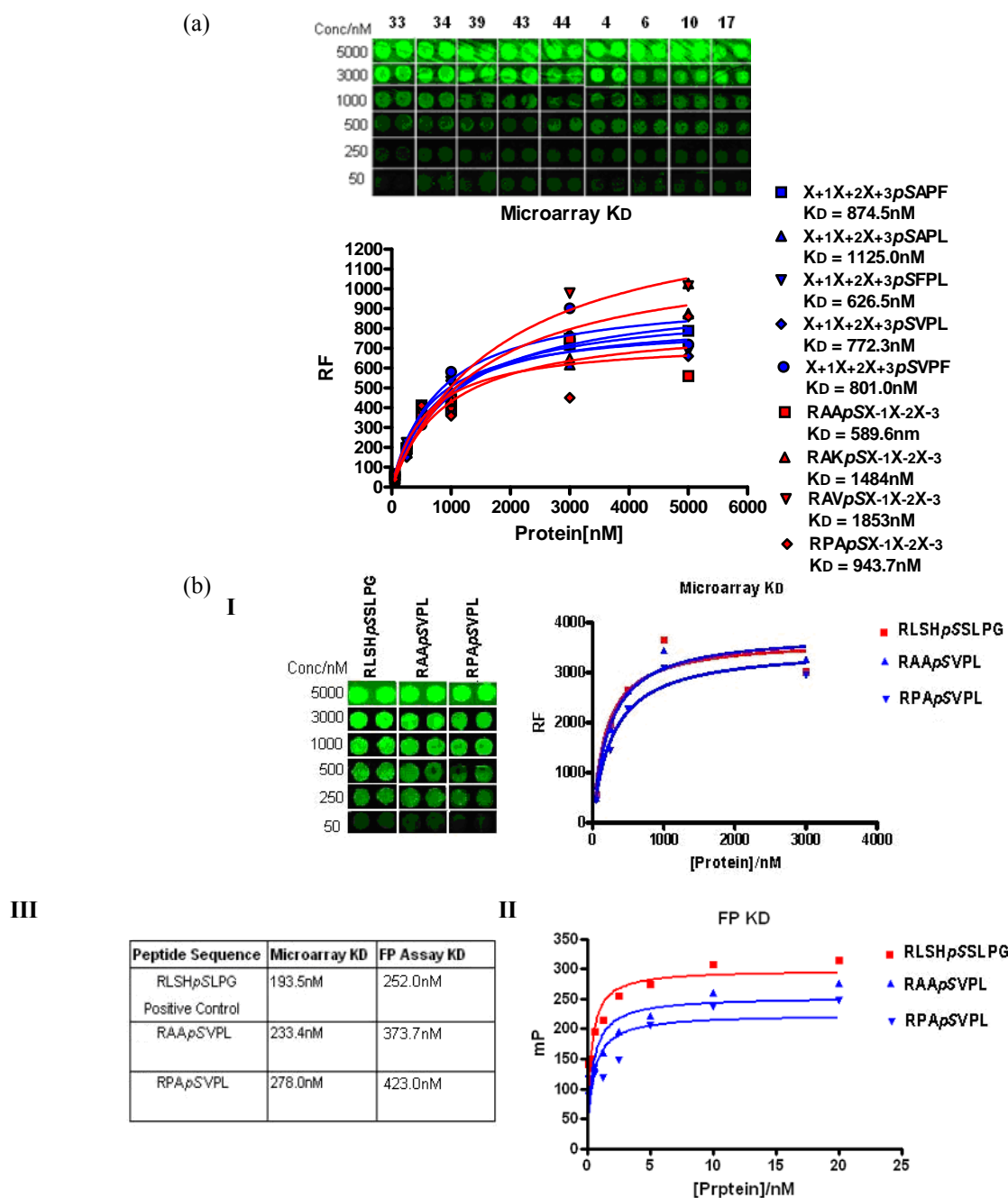


Figure S9. Quantitative determination of selected peptide motifs binding to 14-3-3 σ . (a) Microarray-based K_D determination of 9 representative peptide motifs selected from the 46 consensus binders (numbering of the peptides/spots were based **Figure S8b**), 5 from the C-terminal and 4 from the N-terminal sequences. (b) K_D determination of 2 reconstituted peptide motifs and a previously reported 14-3-3 binding motif (control). **I**: microarray-based K_D determination; **II**: K_D determination using fluorescence polarization experiments with TMR-labeled peptides; **III**: summary of K_D obtained from the microarray and FP experiments.

3.8 Identification of 14-3-3 sigma selective peptide motifs

ID	Peptide Sequence	Cy5 sigma/Cy3 isoform					
		Beta	Epsilon	Eta	Gamma	Tau	Zeta
A1	RSRST ρ STP	-0.38	0.98	2.36	0.49	1.11	0.07
A2	RPA ρ SVPL	-1.36	0.11	1.62	-0.3	0.48	-0.56
A3	RAA ρ SVPL	-0.42	0.52	1.7	0.33	1.06	0.2
A4	LFG ρ SLAR	0.65	1.45	1.64	0.8	1.66	1.49
B1	LFG ρ SLLR	1.18	1.74	4.2	2.14	2.31	2.2
B2	LFG ρ SLVR	1.1	2.1	3.31	1.9	2.25	2.24
B3	LFG ρ SLRF	0.49	0.52	1.62	0.5	1.09	1.16
B4	FGA ρ SLAR	0.24	0.64	0.61	-0.47	0.77	1.08
C1	FGA ρ SLLR	0.99	0.99	2.47	0.82	1.27	1.58
C2	FGA ρ SLVR	0.57	1.18	1.84	0.29	1.1	1.44
C3	FGA ρ SLRF	0.12	0.34	0.99	-0.43	0.71	0.83

Figure S10. Selectivity scores ($\text{Log}_2(\text{Cy5 sigma}/\text{Cy3 isoform})$) of 11 peptides (3 consensus against seven 14-3-3, highlighted in Yellow; 8 reconstituted from **Figure 2a**). A positive $\text{log}_2(\text{ratio})$ indicates higher binding preference for 14-3-3 σ , a negative $\text{log}_2(\text{ratio})$ indicates greater binding preference to the isoform. The results were summarized in **Figure 2b & 2c**. As shown in **Figure 2c** with Cy5-sigma/Cy3-sigma control experiments (first microarray panel), all spots appeared as orange spots, with a $\text{Log}_2(\sigma/\beta) = \sim 0$ across different spots on the same slide, indicating the clear advantage of the dual-color approach for high-throughput identification of sigma-specific peptide motifs.

3.9 K_D of B1 peptide (LFGpSLLR) as determined by SPR experiments

a)

14-3-3 isoform	K_a (1/Ms)	K_d (1/s)	K_D (μ M) ^a
Sigma	25	1.36E-5	0.54
Beta	10.08	4.34E-3	> 10 (401) ^b
Epsilon	9.88	3.04E-3	> 10 (308)
Eta	268	2.77E-3	> 10 (10.03)
Gamma	4.01	4.17E-3	> 10 (1040)
Tau	463	4.98E-3	> 10 (10.07)
Zeta	69.8	2.69E-3	> 10 (38.6)

^aThe corresponding binding rate constants (K_a and K_d) as well as the K_D were obtained from the best fits assuming 1:1 (Langmuir) binding model. ^bSince the highest concentration of the peptide used in our experiments was 10 μ M, any fitted K_D values which were higher than 10 μ M (in Red) would be deemed inaccurate, and simply considered as “> 10 μ M”).

b)

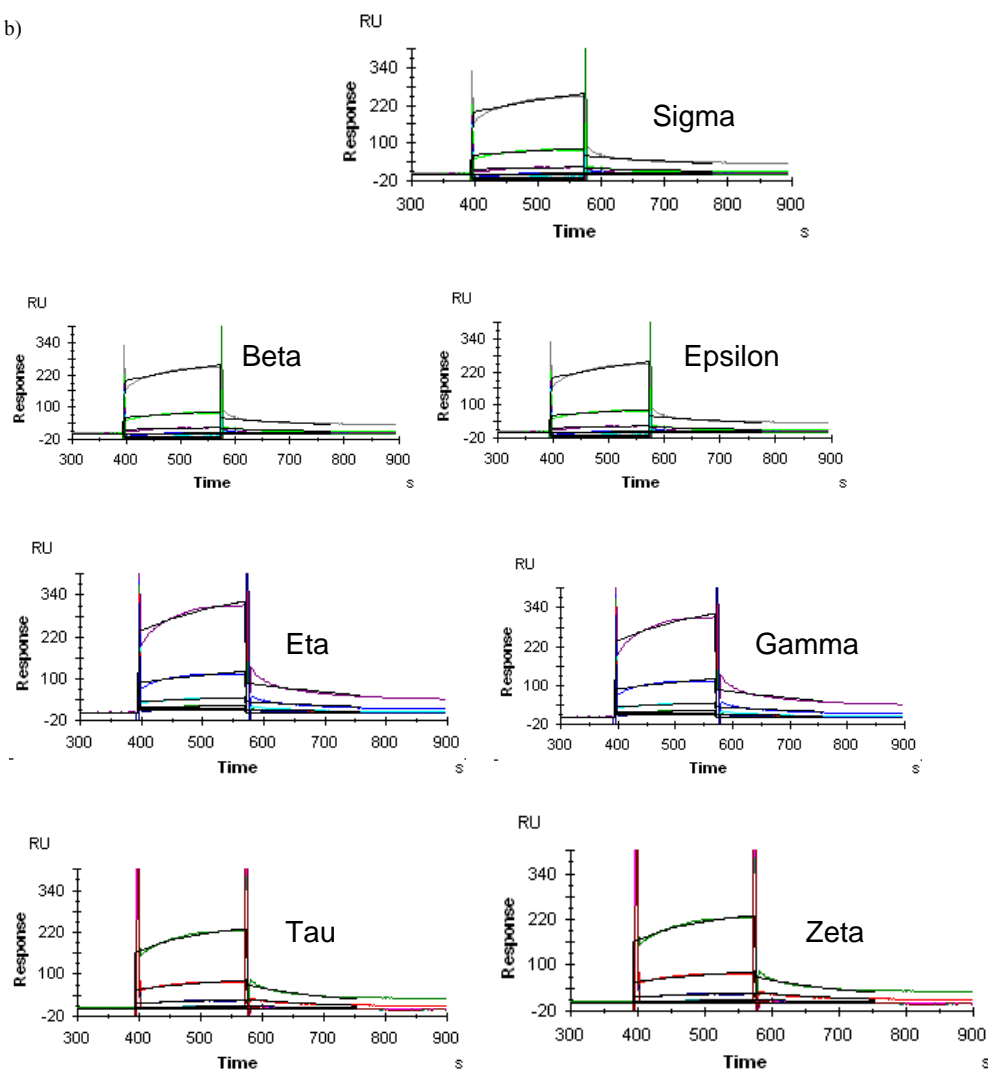


Figure S11. (a) Summary of K_D obtained from SPR experiments. **(b)** SPR profiles of **B1** against each of the seven 14-3-3 isoforms and the corresponding fitted curves.

4 **References:**

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Table S3

NO.	ID	Peptide Sequence	A		B		C		D		E		F		G	
			Cy3 Beta		Cy3 Epsilon		Cy3 Eta		Cy3 Gamma		Cy3 Sigma		Cy3 Tau		Cy3 Zeta	
			RF	Rank	RF	Rank	RF	Rank	RF	Rank	RF	Rank	RF	Rank	RF	Rank
1	A1	XXXpS/TFRP	531,265	117	367,835	509	892,43	125	1312,3	269	618,935	195	832,955	251	6131,32	256
2	A2	XXXpS/TPRP	240,15	361	54,955	850	438,855	486	171,125	745	279,835	450	151,035	731	362,07	865
3	A3	XXXpS/TARP	704,16	74	680,83	292	776,755	171	2532,33	63	1147,63	64	1047,39	204	9266,14	131
4	A4	XXXpS/TFAL	1061,6	33	2169,88	62	1005,96	94	2933,45	29	1407,39	39	4199,62	16	14517,2	31
5	A5	XXXpS/TPAL	165,825	519	0	948	175,275	816	0	890	41,67	794	52,115	866	31,57	949
6	A6	XXXpS/TAAL	958,935	44	1167,51	145	969,3	102	2951,34	27	1352,11	43	2899,41	50	14246,6	36
7	A7	XXXpS/TLRF	396,395	179	507,31	380	569,185	323	1196,74	298	526,24	245	1357,04	151	5306	307
8	A8	XXXpS/TQRF	317,925	250	251,385	625	333,63	625	1165,25	309	310,165	421	508,84	385	2596,83	540
9	A9	XXXpS/TGRF	368,385	204	478,905	407	301,825	666	1269,54	277	561,255	228	971,385	225	4949,03	331
10	A10	XXXpS/TLAR	350,82	218	496,24	388	552,645	340	1235,9	288	779,785	142	1181,59	177	6475,69	244
11	A11	XXXpS/TQAR	230,74	374	139,735	756	462,02	451	385,015	636	329,405	392	271,51	572	2214,14	581
12	A12	XXXpS/TGAR	294,68	276	174,265	707	503,325	394	724,045	475	217,755	530	293,3	552	1807,43	624
13	A13	XXXpS/TFFR	391,11	185	439,71	442	624,88	256	366,055	644	336,555	383	1310,64	160	7583,44	192
14	A14	XXXpS/TPFR	75,4	775	128,69	769	53,09	953	0	898	0	899	72,105	827	1214,01	694
15	A15	XXXpS/TAFR	440,535	152	633,3	313	747,41	182	1052,64	341	430,855	306	1225,58	171	9056,35	140
16	A16	XXXpS/TFGE	242,36	356	209,52	667	432,715	500	426,365	612	127,135	660	560,8	352	5210,51	312
17	A17	XXXpS/TPGE	61,795	820	0	955	143,34	856	0	899	0	900	0	974	48,765	941
18	A18	XXXpS/TAGE	229,615	376	0	929	481,5	428	38,285	828	35,43	801	186,835	676	2073,96	603
19	A19	XXXpS/TLRP	401,52	170	588,375	333	810,72	155	1647,83	182	429,74	308	1171,44	181	7316,56	203
20	A20	XXXpS/TQRP	291,57	279	233,865	638	547,395	349	878,38	402	147,305	636	464,39	415	3355,36	462
21	A21	XXXpS/TGRP	320,375	244	219,775	657	500,13	402	1037,52	351	114,305	689	565,33	349	3173,97	478
22	A22	XXXpS/TLAL	701,225	76	1611,98	102	830,645	147	2452,88	69	805,3	128	3461,98	29	13570,5	45
23	A23	XXXpS/TQAL	261,89	325	128,655	770	367,64	587	295,135	683	110,5	691	479,49	403	3646,22	440
24	A24	XXXpS/TGAL	237,23	365	242,09	633	462,595	450	883,59	399	108,7	695	738,545	279	2493,02	548
25	A25	ERLpS/TXXX	272,305	313	292,06	579	324,14	640	1209,96	294	213,205	540	348,19	501	4010,12	407
26	A26	RLRpS/TXXX	331,485	235	2738,06	38	793,38	164	2217,78	88	998,39	85	1811,17	99	9026,91	141
27	A27	FRLpS/TXXX	272,385	312	523,115	375	538,9	353	1049,23	343	241,75	500	979,195	222	5224,6	311
28	A28	ELGpS/TXXX	132,275	596	21,16	903	201,735	788	0	962	77,925	744	106,19	781	779,795	774
29	A29	RGLpS/TXXX	448,57	149	1466,81	115	908,995	119	2568,58	57	856,085	118	1829,53	98	11763,3	74
30	A30	FLGpS/TXXX	206,455	421	227,575	644	300,215	667	708,49	480	249,31	490	294,14	548	2560,65	545
31	A31	EARpS/TXXX	681,915	80	759,385	259	734,885	189	1537,2	210	743,505	155	1174,95	178	8933,42	143
32	A32	RRApS/TXXX	1227,39	26	3774,38	13	2190,06	6	3413,79	11	1989,21	13	4376,3	14	16553,6	10
33	A33	FARpS/TXXX	1040,7	35	1708,49	98	976,53	101	2343,95	78	1018,99	81	2677,91	59	10491,2	98
34	A34	EVQpS/TXXX	407,825	165	209,84	666	547,625	348	682,33	490	196,62	562	469,35	411	3476,59	455

Table S3

35	A35	RQVpS/TXXX	382,015	194	757,615	261	811,735	154	1595,56	197	544,62	235	1014,14	216	6186,25	254
36	A36	FVQpS/TXXX	545,84	112	769,605	254	586,63	303	1595,98	196	477,29	278	527,52	375	6831,74	228
37	A37	ERQpS/TXXX	523,315	119	493,89	393	567,655	327	671,645	492	180,13	583	435,665	432	5503,3	294
38	A38	RQRpS/TXXX	341,7	226	1264,62	136	1035,15	86	1813,72	149	734,82	159	1347,15	152	8481,79	157
39	A39	FRQpS/TXXX	644,61	86	1039,1	170	937,545	113	1770,1	155	694,455	170	1835,68	97	8493,14	154
40	A40	ELKpS/TXXX	284,885	293	425,025	456	514,295	385	1103,37	324	368,97	355	639,855	319	3930,92	413
41	A41	RKLpS/TXXX	173,5	501	999,415	179	575,295	316	1366,31	251	530,75	243	658,835	307	4971,38	328
42	A42	FLKpS/TXXX	392,38	184	1146,12	151	879,8	133	832,79	422	620,9	192	1501,53	131	6439,32	247
43	A43	EALpS/TXXX	274,395	311	219,535	658	457,475	458	1032,63	353	315,54	412	281,635	563	4146,18	387
44	A44	RLApS/TXXX	521,61	120	1598,48	103	1019,43	91	2140,4	104	753,345	147	2780,32	57	10177,3	107
45	A45	FALpS/TXXX	373,965	201	972,335	187	598,93	287	1197,66	297	461,23	287	1160,37	182	5987,44	262
46	A46	EVGpS/TXXX	132,48	595	70,12	834	303,925	663	0	966	8,275	840	66,245	841	433,675	844
47	A47	RGVpS/TXXX	127,63	611	1831,86	84	337,99	622	1925,45	132	1215,42	56	1276,04	164	9179,03	133
48	A48	FVGpS/TXXX	218,375	391	257,88	621	454,14	461	440,075	606	254,77	478	193,26	665	1435,5	665
49	A49	LKGpS/TXXX	259,57	330	450,91	431	611,19	274	825,625	425	356,205	366	371,42	482	1770,32	630
50	A50	XXXpS/TKKF	402,615	169	434,47	448	949,14	108	258,94	700	254,605	479	270,07	574	851,85	756
51	A52	PFRpS/TXXX	1007,4	39	2363,62	53	1401,52	29	2507,77	64	851,485	119	3353,6	31	11111,1	88
52	A53	PKGpS/TXXX	261,58	326	245,105	631	650,03	236	729,425	472	238,93	506	240,785	609	929,615	743
53	A55	PPQpS/TXXX	16,17	967	732,2	272	1076,72	74	1412,47	241	307,48	425	1147,45	185	7506,08	198
54	A58	PAKpS/TXXX	1284,9	23	1899,17	82	1495,16	18	3254,36	16	1541,3	33	2082,1	82	12953,5	52
55	A61	LKKpS/TXXX	379,395	198	505,655	382	750,45	181	1884,04	138	483,3	273	481,11	401	2719,93	525
56	A62	XXXpS/TKKP	339,635	230	409,01	466	817,7	151	1324,16	264	201,565	554	196,4	657	803,215	768
57	A64	PFLpS/TXXX	345,82	221	738,715	267	944,62	109	2812,35	38	809,25	126	1512,28	127	12093,4	62
58	A65	PKKpS/TXXX	426,905	156	499,815	386	821,64	149	2052,12	116	213,55	539	190,235	670	3111,27	487
59	A67	PPGpS/TXXX	400,02	174	272,465	609	784,665	167	1846,65	144	200,26	556	244,445	602	5478,23	297
60	A70	PGRpS/TXXX	484,275	131	1109,34	156	1194,96	49	2470,62	67	684,53	176	617,605	331	7801,51	179
61	B1	XXXpS/TEPR	1454,85	16	2044,79	73	1156,57	54	2861,49	34	701,33	167	2198,16	71	15116,2	24
62	B2	XXXpS/TPRE	151,18	552	0	964	219,95	766	0	913	0	910	36,485	898	0	979
63	B3	XXXpS/TARE	454,79	143	285,135	587	498,795	406	1170,39	304	70,48	753	555,205	358	7782,47	181
64	B4	XXXpS/TEKE	213,47	407	0	936	284,125	687	267,35	697	0	858	106,99	777	581,39	812
65	B5	XXXpS/TPQP	166,305	518	0	963	205,695	784	18,105	840	33,155	805	66,64	840	0	978
66	B6	XXXpS/TAQP	687,39	79	460,34	426	820,095	150	2066,31	115	798,95	135	1173,17	180	9800,53	117
67	B7	XXXpS/TRLP	283,81	294	272,845	607	390,25	550	694,99	483	359,675	363	201,025	653	1795,04	628
68	B8	XXXpS/TQEL	133,025	593	0	970	21,275	975	0	917	0	916	65,685	842	753,11	779
69	B9	XXXpS/TGEL	127,745	610	58,38	844	185,315	805	0	863	70,49	752	215,34	639	812,165	764
70	B10	XXXpS/TRVL	160,65	529	111,855	791	219,925	767	432,285	609	108,855	694	238,9	613	1800,66	627
71	B11	XXXpS/TQQF	248,77	346	125,465	775	431,785	504	713,565	478	168,39	603	261,19	587	2720,49	524

Table S3

72	B12	XXXpS/TGQF	216,15	397	130,06	764	306,005	661	449,01	601	152,05	631	190,485	669	2327,89	568
73	B13	XXXpS/TEPL	1554,33	13	1941,15	78	1205,69	47	2662,83	48	833,105	122	2241,83	70	13520,8	46
74	B14	XXXpS/TPRF	259,22	331	142,02	753	404,765	532	120,775	782	234,015	513	230,86	619	987,105	736
75	B15	XXXpS/TARF	868,93	52	2294,04	57	1042,17	84	2357,92	77	874,025	113	3785,47	21	14974,5	28
76	B16	XXXpS/TEKF	371,835	202	270,385	610	672,17	224	944,07	383	164,535	609	666,885	303	3649,09	439
77	B17	XXXpS/TPAR	174,575	499	70,57	833	500,64	400	20,89	836	78,39	743	259,83	588	434,08	843
78	B18	XXXpS/TAAR	415,18	162	494,815	391	704,53	208	1087,21	328	439,08	300	1080,32	199	6903,9	224
79	B19	XXXpS/TRPR	289,095	286	493,36	394	705,115	207	1024,13	357	377,935	348	792,565	262	3004,85	499
80	B20	XXXpS/TQRE	151,745	549	37,135	877	267,895	709	125,795	776	0	921	135,78	746	887,685	751
81	B21	XXXpS/TGRE	172,045	505	47,79	866	272,31	700	0	872	0	879	224,38	627	933,055	742
82	B22	XXXpS/TRKE	162,485	525	99,34	809	211,345	777	0	928	0	928	163,87	712	598,3	808
83	B23	XXXpS/TQQP	310,255	260	73,1	829	476,585	433	540,59	558	89,55	720	315,405	518	3110,44	488
84	B24	XXXpS/TGQP	238,475	363	66,005	835	305,45	662	459,115	597	63,365	761	200,53	654	1306,38	682
85	B25	XXXpS/TVRE	384,52	191	425,95	454	447,03	477	919,56	390	227,185	519	933,765	231	5979,72	263
86	B26	RKEpS/TXXX	228,165	377	533,105	368	556,545	335	145,64	763	252,59	484	96,22	798	617,435	801
87	B27	FEKpS/TXXX	173,66	500	162,595	728	330,09	633	468,73	591	168,155	604	205,215	647	1101,81	716
88	B28	XXXpS/TVQP	381,165	196	283,9	588	577,26	313	2022,83	120	456,455	291	1072,81	202	7805,12	178
89	B29	RLLpS/TXXX	530,59	118	860,725	222	617,475	263	1705,17	167	462,435	286	1663,13	112	8772,61	149
90	B30	FLLpS/TXXX	151,265	550	248,43	629	194,88	795	73,06	806	56,315	775	597,215	339	3039,27	493
91	B31	XXXpS/TKEL	129,96	603	26,525	894	237,29	746	145,975	762	24,765	820	146,675	737	554,995	821
92	B32	RGQpS/TXXX	425,55	157	1334,85	128	1118,61	65	1511,82	219	885,625	107	1453,8	142	11861,2	72
93	B33	FQGpS/TXXX	137,485	578	116,475	787	332,6	628	418,495	615	59,85	771	202,705	651	892,715	750
94	B34	XXXpS/TKQF	139,77	571	168,5	719	365,84	591	364,115	646	33,4	804	157,79	720	760,64	775
95	B35	RRVpS/TXXX	1308,39	21	3450,92	22	1461,39	20	2824,03	37	1130,01	65	3627,51	25	14458,2	33
96	B36	FVRpS/TXXX	834,625	56	1761,81	91	730,075	191	2147,48	101	598,26	205	1756,45	104	9146,96	137
97	B37	XXXpS/TVRF	691,295	78	1355,14	124	800,255	160	1507,42	221	580,91	217	1434,26	146	8828,12	147
98	B38	RRRpS/TXXX	1434,13	18	1475,53	114	1291,67	42	2922,93	30	1235,85	52	3636,39	24	10929,6	91
99	B39	FRRpS/TXXX	1026,18	36	2869,19	34	1073,27	76	2397,37	72	1052,78	74	2975,18	48	9358,07	127
100	B40	XXXpS/TVAR	581,145	101	1228,76	138	801,385	159	2149,13	99	856,735	117	1458,86	140	7969,91	172
101	B41	RQLpS/TXXX	288,425	288	879,205	217	499,445	405	1389,5	247	503,535	254	1102,43	196	5717,86	283
102	B42	FLQpS/TXXX	260,455	329	625,46	317	473,595	437	1126,32	319	333,605	386	793,865	261	3096,22	489
103	B43	XXXpS/TKRE	133,335	592	100,37	807	383,475	561	218,275	720	29,565	812	117,765	771	269,775	897
104	B44	RKQpS/TXXX	100,43	693	376,385	503	611,425	273	634,38	510	203,38	552	243,62	604	1606,83	646
105	B45	FQKpS/TXXX	327,035	238	492,89	395	690,73	216	1334,36	260	566,26	225	383,33	472	4054,2	402
106	B46	XXXpS/TKQP	186,14	470	124,205	778	392,52	546	225,295	716	88,32	723	151,775	729	331,61	877
107	B47	RLVpS/TXXX	360,445	211	950,555	190	662,52	229	1535,49	211	508,405	251	1924,89	92	10626,2	96
108	B48	FVLpS/TXXX	180,125	486	490,805	397	364,925	594	521,035	565	87,315	727	562,4	351	2770,7	518

Table S3

109	B49	LEKpS/TXXX	187,765	466	149,295	742	497,575	411	0	967	432,48	305	96,44	795	445,45	840
110	B50	XXXpS/TKVL	191,75	457	379,475	499	613,855	268	0	887	0	890	271,51	571	1139,35	708
111	B52	LLLpS/TXXX	198,25	441	527,65	372	417,425	515	403,275	623	38,795	798	392,055	466	1286,67	685
112	B53	PKLpS/TXXX	251,995	341	484,455	404	642,18	242	1035,12	352	541,2	238	514,78	382	2060,04	605
113	B55	LQGpS/TXXX	192,255	456	295,87	575	578,845	309	839,72	418	71,385	751	306,46	529	791,815	770
114	B58	LVRpS/TXXX	743,585	66	2433,42	48	1150,38	56	2629,19	50	796,45	137	2096,36	79	10746,4	92
115	B61	LRRpS/TXXX	835,725	55	2778,92	37	1323,1	41	2838,56	35	966,075	90	3118,64	39	11370,1	82
116	B62	XXXpS/TKKE	178,72	492	105,075	799	548,635	345	725,72	473	0	887	104,44	783	0	966
117	B64	LLQpS/TXXX	307,24	262	1010,71	178	655,07	234	1985,52	123	603,18	203	896,655	238	5623,1	290
118	B65	PKQpS/TXXX	187,875	465	307,2	560	514,42	383	1046,29	345	0	991	133,435	750	821,475	763
119	B67	LQKpS/TXXX	365,8	206	553,61	354	1014,76	93	2408,22	71	281,915	448	266,06	581	3742,92	427
120	B70	LVLpS/TXXX	283,725	295	799,91	242	698,865	210	1801,76	153	489,44	269	548,325	367	5152,27	315
121	C1	XXXpS/TELF	407,69	166	225,395	649	285,76	684	710,435	479	54,945	777	303,045	533	6486,61	243
122	C2	XXXpS/FLF	620,38	92	618,31	319	622,72	258	1648,83	181	482,4	275	1598,96	118	10195,9	105
123	C3	XXXpS/TAER	316,395	253	70,675	831	421,08	512	708,365	481	80,88	740	291,465	554	2984,04	500
124	C4	XXXpS/TEVR	409,835	164	282,625	590	558,895	332	749,66	464	257,675	472	424,4	444	3970,88	411
125	C5	XXXpS/TFVR	579,75	102	833,5	229	661,13	230	1808,46	150	593,15	209	1565,59	123	9171,79	134
126	C6	XXXpS/TAQE	338,415	231	28,42	892	450,375	468	591,73	535	200,525	555	279,405	566	3227,6	472
127	C7	XXXpS/TRLLE	186,5	468	30,975	886	206,915	783	198,86	729	116,205	684	119,515	768	679,245	793
128	C8	XXXpS/TLLE	203,41	427	122,155	781	175,045	818	581,085	540	152,395	630	471,15	409	3653,74	438
129	C9	XXXpS/TAKP	671,03	81	399,25	480	884,595	131	1580,08	201	736,85	157	655,07	310	5037,42	322
130	C10	XXXpS/TRGP	246,62	349	163,985	726	170,475	824	340,59	661	193,595	565	212,265	642	1356,69	675
131	C11	XXXpS/TLGP	485,345	129	727,705	273	522,32	375	1726,4	164	255,905	476	1114,17	193	7110,74	214
132	C12	XXXpS/TGPL	597,125	99	806,875	238	645,48	239	1879,78	141	710,645	164	588,545	341	7822,88	177
133	C13	XXXpS/TELP	383,945	192	148,62	744	418,33	514	643,835	505	104,035	704	204,545	648	3736,57	429
134	C14	XXXpS/TFLP	318,96	248	276,735	600	432,745	499	513,28	567	324,995	399	407,815	453	3755,02	424
135	C15	XXXpS/TAEL	376,435	199	337,405	535	529,155	365	1141,19	313	268,98	461	629,28	322	6741,6	234
136	C16	XXXpS/TEVL	376,235	200	353,94	521	448,78	472	979,19	371	244,31	493	555,59	357	5429,84	299
137	C17	XXXpS/TFVL	331,045	237	435,99	446	541,91	352	834,76	421	279,205	452	1078,1	200	5080,09	319
138	C18	XXXpS/TAQF	975,08	42	1725,54	96	1121,77	64	1947,52	128	804,31	129	2805,24	56	14116,2	39
139	C19	XXXpS/TRLF	279,36	301	408,94	467	438,37	487	139,12	768	161,145	613	668,545	300	2321,09	569
140	C20	XXXpS/TLLF	231,645	372	326,545	543	212,15	775	521,625	564	160,32	615	510,88	384	2977,53	501
141	C21	XXXpS/TGER	162,48	526	26,725	893	345,01	614	0	864	0	867	119,25	769	512,835	825
142	C22	XXXpS/TRVR	362,435	208	434,96	447	523,515	374	363,425	647	242,25	498	475,805	405	2235,8	579
143	C23	XXXpS/TLVR	383,125	193	597,835	330	497,975	408	839,355	419	420,445	315	997,21	219	4720,69	351
144	C24	XXXpS/TGQE	86,54	725	0	944	131,81	868	0	870	0	877	43,195	886	0	963
145	C25	XXXpS/TVER	342,335	224	510,08	379	400,3	540	614,29	519	69,56	754	927,68	232	5147,14	316

Table S3

146	C26	EFRpS/TXXX	571,4	104	0	998	762,29	173	1657,95	178	494,275	264	1029,77	210	6889,27	226
147	C27	FEQpS/TXXX	134,21	587	0	997	292,3	675	252,305	704	62,215	764	55,07	860	413,055	852
148	C28	XXXpS/TVQE	270,915	315	192,525	685	414,59	521	757,755	460	128,675	658	427,9	440	3974,23	410
149	C29	EPQpS/TXXX	399,255	175	211,645	663	568,8	325	777,44	449	146,675	637	448,205	425	4625,45	357
150	C30	FFKpS/TXXX	550,21	111	1446,47	118	961,195	104	2308,75	81	752,96	148	1429,74	147	8490,86	156
151	C31	XXXpS/TVKP	286,04	291	444,595	437	610,27	277	1935,49	130	457,235	290	694,83	290	3713,04	431
152	C32	EAKpS/TXXX	702,615	75	695,055	285	1131,91	59	1571,23	205	638,855	187	1052,48	203	8000,11	171
153	C33	FQLpS/TXXX	148,625	554	342,55	532	289,815	678	251,49	705	137,47	649	469,39	410	2118,25	598
154	C34	XXXpS/TKPL	165,37	520	207,49	670	544,225	351	1114,24	321	233,27	514	251,81	593	1033,67	727
155	C35	EKLpS/TXXX	121,545	627	192,435	686	309,655	658	592,81	532	252,53	485	220,795	632	1011,71	731
156	C36	FGGpS/TXXX	200,995	433	265,34	614	509,625	388	1006,84	362	355,09	368	174,845	696	2334,76	566
157	C37	XXXpS/TVEL	489,705	128	636,08	312	515,06	382	1614,69	192	306,275	427	1040,41	206	7826,48	176
158	C38	EFLpS/TXXX	287,55	289	547,18	360	476,275	434	1111,49	322	309,715	423	637,52	320	4895,66	335
159	C39	FEGpS/TXXX	69,305	797	0	988	241,52	742	0	958	75,075	749	57,87	857	118,895	926
160	C40	XXXpS/TVQF	1018,58	38	2098,32	64	980,87	99	2253,25	84	955,385	93	1938,5	91	11868,2	71
161	C41	EPGpS/TXXX	116,555	636	50,83	859	273,46	699	0	963	0	964	100,065	788	734,715	785
162	C42	FLRpS/TXXX	484,055	132	1550,95	108	750,495	180	1974,69	124	615,37	197	1977,1	89	7618,92	190
163	C43	XXXpS/TKER	137,85	576	132,94	763	391,315	549	0	880	132,845	655	158,27	719	306,155	886
164	C44	EGRpS/TXXX	251,39	343	543,015	362	496,67	414	555,06	549	372,745	351	403,71	457	3051,53	492
165	C45	FQQpS/TXXX	185,65	472	356,625	520	493,115	418	615,275	518	103,025	705	186,59	678	1762,11	632
166	C46	XXXpS/TKQE	111,265	651	98,99	810	250,065	731	0	885	0	889	76,55	821	56,985	937
167	C47	EKQpS/TXXX	152,945	544	147,645	746	393,46	545	0	993	32,61	806	68,745	834	387,895	857
168	C48	FGKpS/TXXX	439,84	153	818,735	233	942,3	110	1829,8	146	649,83	184	734,065	281	7373,97	201
169	C49	LEQpS/TXXX	123,49	621	52,755	853	353,71	608	0	989	0	988	74,2	824	335,335	875
170	C50	PEQpS/TXXX	90,415	715	28,86	891	285,94	683	0	990	0	989	0	1000	0	1000
171	C52	LFKpS/TXXX	537,17	114	1717,43	97	1046,18	83	2068,65	114	899,13	105	770,755	273	8361,92	163
172	C53	PFKpS/TXXX	808,17	59	1966,43	76	1381,74	30	2543,09	60	1150,96	62	1327,73	155	10459,8	100
173	C55	LQLpS/TXXX	67,305	806	169,25	716	239,38	744	396,635	628	40,535	797	333,175	511	0	991
174	C56	PQLpS/TXXX	194,54	451	346,18	528	514,41	384	866,3	409	311,4	416	372,815	480	1002,59	734
175	C58	LGGpS/TXXX	321,645	243	408,925	468	640,41	243	1520,07	214	418,02	318	522,52	378	3330,11	465
176	C59	PGGpS/TXXX	288,53	287	277,685	598	632,34	253	1225,62	289	119,38	675	201,59	652	2117,2	599
177	C61	LEGpS/TXXX	111,575	650	188,49	693	293,19	674	500,31	577	157,775	622	186,385	679	383,175	859
178	C62	PEGpS/TXXX	108,115	666	51,295	857	269,04	706	0	959	0	962	13,33	933	30,365	952
179	C64	LLRpS/TXXX	576,815	103	2269,86	59	1117,96	66	2672,35	47	1073	68	1789,51	101	7370,75	202
180	C65	PLRpS/TXXX	536,23	115	1952,33	77	1113,7	67	2730,52	43	620,135	194	1509,73	129	8295,69	164
181	C67	LQQpS/TXXX	233,04	370	220,93	654	549,03	344	1175,36	302	66,67	760	61,46	851	1323,64	679
182	C68	PQQpS/TXXX	207,27	420	200,93	680	487,775	425	1166,1	308	0	993	50,92	869	861,155	755

Table S3

183	C70	LGKpS/TXXX	479,92	134	897,15	209	1124,21	62	2949,3	28	1019,61	80	507,435	387	7529,28	197
184	C71	PGKpS/TXXX	402,83	168	646,505	304	1131,04	61	3026,48	26	583,205	216	353,34	497	5808,35	278
185	D1	XXXpS/TEFL	295,935	274	226,145	646	339,265	620	961,035	376	149,4	632	172,76	699	4822,6	340
186	D2	XXXpS/TFFL	442,315	151	808,12	237	421,33	511	1600,06	195	436,6	302	1101,81	197	9367,74	126
187	D3	XXXpS/TPFL	231,315	373	88,16	827	288,63	680	0	896	121,535	671	148,02	734	1026,81	728
188	D4	XXXpS/TEGF	450,845	146	250,8	627	367,87	585	925,04	389	75,26	747	341,325	505	4423,44	369
189	D5	XXXpS/TFGF	670,265	82	21,04	904	649,74	237	1636,91	185	595,3	207	1456,9	141	9294,39	130
190	D6	XXXpS/TPGF	199,48	438	46,075	871	266,755	711	108,46	789	134,15	652	71,165	828	328,11	878
191	D7	XXXpS/TRFR	424,305	158	433,33	449	538,315	354	842,775	417	313,285	414	567,025	348	3701,69	432
192	D8	XXXpS/TLFR	433,07	154	646,025	306	535,72	357	797,69	440	346,115	379	1076,6	201	5973,44	265
193	D9	XXXpS/TQFR	280,125	299	279,64	596	270,01	704	655,115	501	267,185	464	288,69	557	1725,6	635
194	D10	XXXpS/TRGE	128,545	606	15,22	913	0	996	37,7	830	0	927	61,18	853	535,46	823
195	D11	XXXpS/TLGE	212,285	410	234,175	637	167,53	832	618,035	516	158,35	619	554,675	359	4486,77	366
196	D12	XXXpS/TQGE	87,34	723	0	972	55,915	950	0	919	0	918	15,77	928	130,12	922
197	D13	XXXpS/TELE	102,93	683	0	937	47,255	955	0	856	0	859	0	960	462,165	837
198	D14	XXXpS/TFLE	200,835	434	49,18	864	229,785	761	547,56	554	83,2	733	215,635	638	2581,43	542
199	D15	XXXpS/TPLE	69,81	794	0	958	0	994	0	904	0	903	0	975	0	974
200	D16	XXXpS/TEGP	294,96	275	49,72	862	374,78	575	397,43	627	10,965	838	235,795	615	5003,88	324
201	D17	XXXpS/TFGP	776,05	62	1202,57	141	716,605	196	1726,81	163	907,475	102	2005,51	86	12382,1	58
202	D18	XXXpS/TPGP	119,175	629	0	956	169,67	828	0	900	0	901	60,945	854	0	972
203	D19	XXXpS/TRFL	331,2	236	366,24	515	367,18	589	389,245	634	237,335	508	520,97	379	3123,8	486
204	D20	XXXpS/TLFL	420,545	161	844,645	226	614,905	267	1390,25	246	644,875	185	1581,65	120	8621,24	151
205	D21	XXXpS/TQFL	294,085	277	304,985	564	446,315	478	441,85	605	176,505	593	307,17	528	3201,8	474
206	D22	XXXpS/TRGF	501,405	124	324,69	545	554,43	339	197,86	730	180	584	430,745	438	3174,83	477
207	D23	XXXpS/TLGF	450,565	147	930,895	202	516,59	379	1238,37	285	441,42	299	1522,66	126	0	968
208	D24	XXXpS/TQGF	296,445	273	189,985	690	431,92	502	595,115	528	206,05	550	181,075	688	2206,63	583
209	D25	XXXpS/TGKF	316,685	252	382,89	495	529,2	364	1370,38	250	336,08	385	376,43	477	4655,15	354
210	D26	ERGpS/TXXX	243,04	353	306,74	562	371,775	577	265,68	698	153,5	627	217,845	634	2009,76	611
211	D27	RGRpS/TXXX	500,29	125	2600,31	42	1186,18	52	1343,89	258	824,41	125	2374,76	66	12080,7	63
212	D28	XXXpS/TVPR	735,345	67	1773,28	90	1264,42	45	2339,37	79	1053,16	73	1619,77	116	11482,6	80
213	D29	EPRpS/TXXX	392,8	182	587,82	334	561,855	330	730,425	470	803,375	134	822,97	253	6769,92	233
214	D30	RRPpS/TXXX	215,27	401	501,6	384	716,53	197	730,23	471	490,84	268	667,905	301	4045	404
215	D31	XXXpS/TVKE	197,42	443	277,295	599	328,89	634	982,275	370	180,395	582	434,335	433	2141,22	595
216	D32	EAQpS/TXXX	394,48	180	371,19	508	526,015	372	502,165	576	75,13	748	622,74	327	4995,66	326
217	D33	RQAps/TXXX	274,67	310	559,57	350	869,715	136	1322,34	265	412,01	323	645,63	315	4938,52	332
218	D34	XXXpS/TKLP	133,475	591	189,67	691	410,295	527	369,23	642	42,18	793	120,64	765	433,48	845
219	D35	EVKpS/TXXX	352,43	217	689,265	287	452,26	462	1575,42	202	668,9	179	618,275	329	5323,22	306

Table S3

220	D36	RKVpS/TXXX	125,795	616	779,32	249	434,185	495	909,185	393	400,365	330	501,905	391	4370,11	374
221	D37	XXXpS/TGKP	223,265	385	140,06	755	570,22	322	0	867	0	872	184,57	681	1127,91	709
222	D38	ERKpS/TXXX	460,935	139	1162,98	147	799,205	162	1411,13	242	548,415	234	777,125	270	6247,96	252
223	D39	RKRpS/TXXX	397,28	177	1104,42	157	687,39	217	1347,9	257	595,265	208	690,875	293	3857,11	418
224	D40	XXXpS/TVPL	1796,31	8	4177,92	8	1356,58	35	3782,4	5	1551,18	30	4316,57	15	15277,2	22
225	D41	EPLpS/TXXX	167,595	516	127,99	772	381,02	567	495,505	582	145,905	638	280,16	565	2605,83	537
226	D42	RLPpS/TXXX	227,755	378	526,36	374	655,31	233	797,68	441	217,145	532	502,2	390	2611,11	536
227	D43	XXXpS/TVKF	255,8	335	872,605	219	710,075	201	1246,95	280	464,945	283	1033,77	208	4502,02	363
228	D44	EAGpS/TXXX	108,23	665	43,935	874	272,25	702	225,585	715	60,295	769	156,65	722	684,115	791
229	D45	RGApS/TXXX	209,475	418	2055,5	70	503,145	396	1831,26	145	1238,28	51	1194,9	175	8700,11	150
230	D46	XXXpS/TKPR	243,605	351	446	436	815,205	153	670,065	493	304,81	429	321,215	515	749,9	781
231	D47	EKRpS/TXXX	247,185	348	548,1	358	592,025	299	570,03	544	384,925	339	293,38	551	1591,7	647
232	D48	RRKpS/TXXX	1353,91	20	3692,36	15	1427,5	25	2917,45	31	1571,27	28	3228,49	35	14486,6	32
233	D49	LERpS/TXXX	126,16	614	416,215	463	366,105	590	0	996	0	994	315,26	519	2454,78	551
234	D50	PERpS/TXXX	210,625	413	282,27	592	492,895	419	110,61	788	178,365	586	166,055	708	1331,38	676
235	D52	LFQpS/TXXX	315,58	255	784,965	245	758,065	175	1224,6	290	285,96	443	405,905	455	4128,62	388
236	D53	PFQpS/TXXX	469,805	135	979,19	184	904,745	120	2176,2	96	296,675	437	474,91	407	5283,22	309
237	D55	LPKpS/TXXX	1084,73	30	1416,69	122	1354,45	37	2493,57	65	1004,73	82	809,57	258	10172,8	108
238	D56	PPKpS/TXXX	999,6	40	1329,55	129	1373,18	31	2677,09	46	901,745	103	1709,73	108	9983,09	111
239	D58	LGLpS/TXXX	257,175	334	617,05	320	362,555	596	1424,96	237	292,795	438	445,335	427	2634,41	534
240	D59	PGLpS/TXXX	303,895	263	611,685	324	547,865	346	1574,4	204	208,605	546	664,74	305	3526,36	448
241	D61	LELpS/TXXX	97,085	698	378,54	501	200,815	789	598,655	526	97,205	713	269,76	575	845,305	758
242	D62	PELpS/TXXX	134,98	584	94,005	816	333,555	626	348,69	654	22,075	824	68,16	836	205,73	908
243	D64	LFGpS/TXXX	243,385	352	665,355	296	568,89	324	1525,65	213	424,885	314	394,87	462	3927,76	414
244	D65	PFGpS/TXXX	325,31	241	556,42	353	685,325	220	1127,04	318	124,985	664	301,25	538	3125,31	485
245	D67	LQRpS/TXXX	392,645	183	866,105	220	855,895	144	1696,54	170	408,375	327	692,275	292	4746,24	349
246	D68	PQRpS/TXXX	404,585	167	973,9	186	869,565	137	2076,35	113	304,985	428	900,195	237	3152,2	481
247	D70	LGQpS/TXXX	258,28	333	402,27	476	643,22	241	1747,58	158	299,575	434	242,99	606	3698,96	433
248	D71	PGQpS/TXXX	276,46	306	347,5	527	721,8	193	2128	106	257,085	474	258,6	590	3645,31	441
249	E1	XXXpS/TFRL	465,49	137	505,815	381	502,9	397	881,53	401	313,965	413	839,21	250	6686,85	235
250	E2	XXXpS/TPRL	264,905	319	104,4	800	468,025	443	78,55	802	236,43	509	132,71	752	601,15	807
251	E3	XXXpS/TARL	545,29	113	891,6	211	892,005	126	1882,04	140	596,49	206	1028,86	212	9633,93	120
252	E4	XXXpS/TFAF	908,755	49	2447,08	47	1074,49	75	2708,26	44	1197,79	58	4042,42	19	14980,2	27
253	E5	XXXpS/TPAF	131,865	599	24,6	898	256,21	723	0	889	16,455	830	39,435	893	79,59	933
254	E6	XXXpS/TAAF	1053,99	34	2052,32	71	1412,98	28	1929,99	131	689,165	175	2830,99	53	15012	26
255	E7	XXXpS/TLRR	400,74	173	626,07	316	605,19	285	781,9	446	503,635	253	845,41	249	4030,79	406
256	E8	XXXpS/TQRR	285,965	292	307,44	559	490,445	421	498,415	578	324,23	400	391,19	467	1322,11	681

Table S3

257	E9	XXXpS/TGRR	362,035	209	361,68	516	605,405	284	643,825	506	373,185	350	428,165	439	1200,34	696
258	E10	XXXpS/TLAE	279,555	300	286,815	584	208,845	780	891,61	397	186,2	570	626,73	326	2777,87	517
259	E11	XXXpS/TQAE	66,31	809	0	967	104,24	903	74,61	804	0	913	0,93	954	118,165	927
260	E12	XXXpS/TGAE	60,555	821	0	940	0	990	0	861	0	865	7,23	946	37,34	946
261	E13	XXXpS/TFFE	180,38	485	106,91	794	253,52	727	83,675	800	80,61	741	297,175	546	1937,7	618
262	E14	XXXpS/TPFE	224,52	382	107,575	793	403,525	536	53,445	821	183,75	575	204,045	650	734,32	786
263	E15	XXXpS/TAFE	290,695	283	295,11	576	497,865	410	117,22	786	89,375	722	482,89	400	4565,23	360
264	E16	XXXpS/TFAP	466,19	136	1556,01	107	981,58	98	1296,89	270	1069,03	69	1795,31	100	9549,27	123
265	E17	XXXpS/TPAP	75,73	768	0	949	232,635	755	0	891	0	892	9,625	941	0	969
266	E18	XXXpS/TAAP	637,295	88	769,875	253	1050,46	80	1789,42	154	1151,17	61	1097,28	198	9960,85	112
267	E19	XXXpS/TLRL	319,39	245	181,8	698	616,675	265	1041,75	348	500,355	257	973,035	223	4918,89	333
268	E20	XXXpS/TQRL	214,02	406	442,665	440	523,705	373	633,775	511	281,64	449	312,075	521	2444,86	554
269	E21	XXXpS/TGRL	272,025	314	492,84	396	598,975	286	800,52	438	156,76	623	560,53	353	3832,36	420
270	E22	XXXpS/TLAF	551,13	110	2090,07	65	912,69	117	2198,19	90	1048,36	75	3100,07	41	13492,1	47
271	E23	XXXpS/TQAF	191,575	458	181,955	697	384,9	559	463,115	594	218,045	528	206,175	646	2430,27	556
272	E24	XXXpS/TGAF	182,85	481	279,19	597	498,095	407	799,9	439	309,79	422	319,395	516	2734,5	523
273	E25	ERFpS/TXXX	363,26	207	806,785	239	634,19	250	1542,31	209	356,28	365	627,63	325	5909,54	272
274	E26	RFRpS/TXXX	832,11	57	3388,44	24	1191,36	51	2581,7	56	1325,51	48	3023,07	44	11477,5	81
275	E27	FRFpS/TXXX	276,775	305	1141,14	152	536,095	356	1094,28	325	346,54	377	1729,57	107	5916,75	271
276	E28	ELApS/TXXX	172,745	503	359,215	519	467,33	445	400,12	626	155,89	625	786,12	265	3139,76	483
277	E29	RALpS/TXXX	1540,77	14	3562,93	17	1431,29	24	3321,41	13	1745,36	22	4160,81	17	14586,8	30
278	E30	FLApS/TXXX	231,85	371	663,935	297	425,995	507	1084,12	329	183,345	577	1438,18	145	4848,59	337
279	E31	EAEpS/TXXX	94,04	706	0	979	209,275	779	0	933	93,075	718	85,17	809	562,225	819
280	E32	REApS/TXXX	28,74	933	142,2	752	80,235	927	136,36	769	105,175	700	96,315	797	1501,65	657
281	E33	FAEpS/TXXX	146,29	556	157,23	733	527,955	368	544,71	555	135,04	651	308,5	527	1982,74	615
282	E34	EVPpS/TXXX	46,46	877	0	995	169,58	829	0	987	0	986	0	999	0	999
283	E35	RPVpS/TXXX	568,46	107	3431,94	23	1154,75	55	3162,95	21	1625,23	27	3483,16	28	17579,8	6
284	E36	FVPpS/TXXX	75,655	770	51,175	858	322,955	642	134,52	770	52,36	782	70,53	829	502,575	828
285	E37	ERPpS/TXXX	76,275	763	55,53	848	437,485	490	43,58	827	174,99	597	190,195	671	631,38	796
286	E38	RPRpS/TXXX	1403,61	19	3371,3	25	1651,25	12	3431,95	9	1796,53	21	3349,26	32	15485,9	19
287	E39	FRPpS/TXXX	166,66	517	337,03	536	577,48	312	338,83	662	212,73	542	381,675	474	2359,73	565
288	E40	ELVpS/TXXX	174,665	498	225,54	647	199,265	792	311,365	674	94,245	717	612,595	333	3009,93	497
289	E41	RVLpS/TXXX	643,91	87	1825,53	85	956,675	107	2392,26	74	746,125	150	2164,3	74	11165,7	86
290	E42	FLVpS/TXXX	137,825	577	470,235	418	547,73	347	337,465	664	243,82	494	782,435	267	4191,13	385
291	E43	EAFpS/TXXX	287,34	290	201,32	679	596,185	291	685,635	486	262,465	468	433,88	435	5413,4	300
292	E44	RFApS/TXXX	602,34	98	3552,58	18	1354,54	36	2768,17	39	1628,78	26	2806,19	55	14224,9	37
293	E45	FAFpS/TXXX	342,09	225	749,875	264	691,06	215	1080,44	331	541,655	236	1748,42	105	9295,35	129

Table S3

294	E46	EVApS/TXXX	303,635	264	528,365	371	581,11	305	1043,23	347	310,355	419	884,485	240	6673,8	236
295	E47	RAVpS/TXXX	944,715	47	5017,17	2	1464,08	19	3498,08	8	2317,37	8	5008,23	10	15559,9	18
296	E48	FVApS/TXXX	296,625	271	701,76	281	707,97	205	1366,25	252	355,28	367	1135,92	188	7577,18	193
297	E49	LKApS/TXXX	241,85	357	381	498	619,365	260	847,755	415	394,86	337	431,52	437	2642,55	532
298	E50	XXXpS/TKKR	312,86	258	421,03	459	895,42	124	791,44	444	398,425	333	406,14	454	960,99	740
299	E52	PFEpS/TXXX	34,05	914	339,805	533	132,805	866	55,245	819	0	941	141,945	742	1387,97	672
300	E53	PKApS/TXXX	217,495	394	231,655	641	570,355	321	587,87	537	105,18	699	188,61	674	1866,9	622
301	E55	PPPpS/TXXX	184,145	476	57,955	845	357,675	602	358,03	648	52,795	781	26,08	914	1379,59	673
302	E58	PAVpS/TXXX	461,175	138	1104,28	158	463,7	447	2180,44	94	555,75	230	1472,01	136	10656,7	95
303	E61	LKVpS/TXXX	252,05	340	592,145	331	554,535	338	1067,09	336	211,455	543	368,93	485	2306,45	571
304	E62	XXXpS/TKKL	280,37	298	367,76	510	631,11	254	1654,55	180	429,18	309	239,595	612	752,975	780
305	E64	PFFpS/TXXX	606,93	97	1480,97	113	862,56	141	2037,04	119	744,23	153	1641,36	114	10967,1	89
306	E65	PKVpS/TXXX	214,83	402	489,425	398	626,37	255	1622,97	189	495,69	262	481,095	402	2481,17	549
307	E67	PPApS/TXXX	950,16	46	1542,15	110	1181,73	53	2275,62	83	870,99	114	2470,69	63	16464,4	11
308	E70	PGEpS/TXXX	25,4	947	46,19	870	125,14	877	0	942	185,38	572	41,58	891	534	824
309	F1	XXXpS/TEPE	265,8	318	88,32	826	242,16	741	552,17	550	68,125	756	155,115	724	4332,67	377
310	F2	XXXpS/TEPE	111,24	652	0	953	106,845	899	24,405	833	0	896	0	973	30,795	951
311	F3	XXXpS/TAEP	520,565	121	180,875	699	598,61	289	1024,64	356	285,075	444	286,92	559	5289,22	308
312	F4	XXXpS/TEVP	345,685	222	184,065	694	520,72	378	1236,84	287	130,025	657	291,25	555	4406,06	371
313	F5	XXXpS/TPQL	159,74	531	28,905	890	238,86	745	0	911	11,73	835	65,375	844	31,83	948
314	F6	XXXpS/TAQL	484,515	130	660,955	299	885,54	130	2145,07	103	705,91	165	1294,14	161	9133,64	138
315	F7	XXXpS/TRLL	211,36	412	313,67	553	504,555	393	149,84	757	119,95	673	468,815	412	1559,92	651
316	F8	XXXpS/TQEF	94,495	703	0	969	236,17	749	0	916	0	915	44,16	877	342,94	870
317	F9	XXXpS/TGEF	114,62	642	8,02	919	232,1	756	59,79	816	31,41	808	167,085	706	502,545	829
318	F10	XXXpS/TRVF	236,44	366	290,65	582	388,81	553	389,65	632	304,35	430	455,805	420	1423,69	666
319	F11	XXXpS/TQQR	157,535	534	148,755	743	295,26	673	226,025	714	143,77	639	104,205	784	681,785	792
320	F12	XXXpS/TGQR	143,62	563	135,58	761	260,635	718	0	871	41,07	795	0	965	407,415	854
321	F13	XXXpS/TEPF	1273,59	24	2075,62	67	1214,53	46	1807,77	151	703,035	166	2454,61	64	13915,5	40
322	F14	XXXpS/TPRR	242,44	355	166,595	723	509,175	390	127,845	775	232,04	517	249,9	596	620,7	800
323	F15	XXXpS/TARR	354,655	216	821,355	231	718,23	195	622,875	514	451,23	293	865,38	243	3771,57	422
324	F16	XXXpS/TEKR	291,245	280	436,875	444	593,265	295	871,745	406	384,705	340	392,335	464	2155,71	592
325	F17	XXXpS/TPAE	40,685	886	0	947	83,325	922	0	888	0	891	0	969	9,05	956
326	F18	XXXpS/TAAE	241,505	358	70,595	832	379,07	570	760,155	459	159,99	616	368,505	486	2316,17	570
327	F19	XXXpS/TRPE	146,18	557	57,075	846	397,43	543	46,155	826	27,01	816	137,92	745	809,595	765
328	F20	XXXpS/TQEP	103,29	678	19,7	906	183,83	808	139,69	766	22,265	822	38,78	894	494,19	831
329	F21	XXXpS/TGEP	93	710	24,15	899	217,85	770	56,11	818	5,205	846	45,79	875	614,705	803
330	F22	XXXpS/TRVP	144,455	560	233,29	639	415,12	519	147,12	761	177,065	592	158,555	718	1507,77	655

Table S3

331	F23	XXXpS/TQQL	167,7	515	127,255	774	362,325	597	0	923	33,445	803	106,53	778	2391,88	559
332	F24	XXXpS/TGQL	136,565	580	267,465	612	351,875	610	421,18	614	0	878	268,65	577	1934,51	619
333	F25	XXXpS/TVEP	35,585	904	23,705	900	171,79	823	134,385	771	11,83	834	62,875	847	1148,1	705
334	F26	RVEpS/TXXX	289,27	285	446,44	435	666,845	227	1153,21	311	480,325	276	478,77	404	4227,54	383
335	F27	FFVpS/TXXX	50,99	857	193,96	683	28,61	970	0	998	0	996	221,69	629	1216,14	693
336	F28	XXXpS/TVQL	517,685	122	1150,25	149	978,36	100	2420,89	70	895,675	106	2393,38	65	13812	43
337	F29	RFLpS/TXXX	1073,54	32	3065,1	30	1369,97	32	2565,73	58	1212,02	57	2892,94	51	13866,4	42
338	F30	FLFpS/TXXX	151,975	548	467,995	420	371,21	578	237,82	708	279,255	451	824,84	252	3155,52	480
339	F31	XXXpS/TKEF	108,395	662	52,16	855	330,925	630	0	878	0	884	135,68	747	407,46	853
340	F32	RAQpS/TXXX	1970,32	7	3859,92	10	1824,16	10	3826,73	4	1975,7	14	4856,67	12	15924,6	17
341	F33	FQApS/TXXX	169,64	509	325,325	544	526,425	370	536,4	560	214,54	537	555,695	356	2131,16	597
342	F34	XXXpS/TKQR	186,445	469	231,345	642	610,005	278	312,48	671	240,645	504	212,965	641	436,18	842
343	F35	RFVpS/TXXX	157,035	536	316,725	551	405,72	531	940,255	384	273,74	459	484,185	398	3487,03	454
344	F36	FVEpS/TXXX	67,365	804	91,645	819	252,14	730	105,41	791	0	954	34,115	902	714,78	789
345	F37	XXXpS/TVRR	331,845	234	939,065	197	966,895	103	1327,93	262	471,73	279	1152,19	183	5497,37	295
346	F38	RERpS/TXXX	203,625	426	710,755	278	647,445	238	1076,68	332	507,34	252	453,555	422	4107,01	393
347	F39	FREpS/TXXX	199,655	437	300,57	572	534,4	358	650,845	502	157,835	621	299,835	541	2303,42	572
348	F40	XXXpS/TVAE	411,35	163	514,995	378	617,775	262	1429,41	236	221,685	525	1278,32	163	6979,8	223
349	F41	RPLpS/TXXX	1080,22	31	2652,74	41	1194,29	50	3259,51	15	1217,64	54	3014,69	46	13668,7	44
350	F42	FLPpS/TXXX	139,835	570	178,315	701	440,2	485	165,305	749	130,51	656	255,795	591	1450,93	662
351	F43	XXXpS/TKEP	82,01	745	45,745	872	315,89	649	0	879	18,75	828	109,81	775	0	965
352	F44	RVQpS/TXXX	1465,83	15	1577,3	104	1131,9	60	2538,31	61	900,335	104	1730,61	106	11558,4	78
353	F45	FQVpS/TXXX	124,82	617	301,44	570	381,785	563	682,885	489	153,71	626	457,08	419	2182,35	586
354	F46	XXXpS/TKQL	169,485	511	170,825	713	436,22	491	656,515	499	253,65	483	161,28	714	617,235	802
355	F47	RFVpS/TXXX	205,51	424	2792,13	36	654,565	235	1884,03	139	1121,85	66	979,61	221	7642,41	187
356	F48	FVFpS/TXXX	184,48	475	582,985	337	451,22	467	692,765	485	197,735	560	583,745	344	3311,03	468
357	F49	LFVpS/TXXX	94,34	704	206,98	671	296,52	670	0	999	0	997	185,93	680	804,43	766
358	F50	XXXpS/TKVF	197,22	446	425,545	455	745,315	184	927,765	388	344,805	380	270,29	573	1292,81	684
359	F52	LLFpS/TXXX	190,665	460	566,17	347	311,635	655	474,575	589	61,145	768	91,99	801	3376,84	460
360	F53	PKFpS/TXXX	275,44	307	451,86	430	655,76	232	1146,22	312	181,605	580	330,72	512	2177,95	588
361	F55	LQApS/TXXX	122,52	625	394,605	488	438,24	488	703,43	482	184,035	574	242,015	608	580,345	813
362	F58	LVEpS/TXXX	75,7	769	302,24	568	338,935	621	115,535	787	11,265	836	196,07	659	0	989
363	F61	LREpS/TXXX	212,175	411	545,7	361	434,075	496	657,415	498	198,265	559	367,145	488	3665,88	436
364	F62	XXXpS/TKVP	199,73	436	252,4	622	487,925	424	793,525	442	53,71	778	89,16	802	453,53	839
365	F64	LLPpS/TXXX	202,605	429	347,61	526	316,39	648	395,355	629	205,905	551	162,6	713	1122,77	712
366	F65	PKPpS/TXXX	152,595	546	128,615	771	425,88	508	301,54	678	0	980	29,705	907	276,805	892
367	F67	LQVpS/TXXX	60,04	823	156,985	734	181,16	812	208,81	723	0	1000	122,8	763	251,495	901

Table S3

368	F70	LVFpS/TXXX	225,165	381	662,805	298	433,795	497	1514,74	217	232,41	516	532,995	372	6107,51	257
369	G1	XXXpS/TELR	303,05	265	282,195	593	532,435	361	954,915	380	138,41	647	294,085	549	4063,09	399
370	G2	XXXpS/TFLR	443,075	150	466,385	422	735,3	188	769,64	455	370,295	354	950,8	227	6610,97	239
371	G3	XXXpS/TAEE	73,685	782	90,23	823	141,24	859	294,005	685	66,99	759	74,615	823	1025,68	730
372	G4	XXXpS/TEVE	82,125	744	0	939	122,485	882	0	859	0	862	0	962	288,54	890
373	G5	XXXpS/TFVE	156,44	537	11,99	917	248,39	733	166,22	748	0	864	127,67	758	2152,23	593
374	G6	XXXpS/TAPP	2559,99	2	4837,72	3	3289,23	1	4073,6	1	2616,8	3	8255,26	1	20545,9	2
375	G7	XXXpS/TRFP	205,68	423	150,55	740	578,19	311	297,865	681	217,395	531	310,885	526	381,72	861
376	G8	XXXpS/TLFP	388,475	188	607,645	325	668,595	226	1320,47	266	451,225	294	1315,27	158	5483,32	296
377	G9	XXXpS/TAKL	381,495	195	782,935	247	802,29	158	1942,18	129	836,185	121	1335,69	154	4506,31	362
378	G10	XXXpS/TRGL	185,145	474	360,54	518	413,77	522	414,305	619	268,785	462	240	611	585,99	810
379	G11	XXXpS/TLGL	300,53	266	601,54	327	425,07	509	1089,69	327	350,88	372	1029,42	211	4386,53	372
380	G12	XXXpS/TGPF	563,555	108	437,29	443	479,64	429	613,14	521	0	876	388,86	469	2652,51	530
381	G13	XXXpS/TELL	290,94	282	488,785	400	444,085	480	667,77	494	5,025	847	915,32	235	2615,56	535
382	G14	XXXpS/TFLL	297,09	270	584,575	335	494,88	415	566,105	547	213,875	538	1000,55	218	3657,21	437
383	G15	XXXpS/TAEF	719	70	1278,51	132	884,565	132	1166,97	306	217,935	529	2304,51	68	8561,8	152
384	G16	XXXpS/TEVF	189,25	463	120,175	784	290,5	676	448,35	602	124,355	667	282,27	562	1407,34	668
385	G17	XXXpS/TFVF	264,05	321	641,36	309	552,53	341	1177,39	301	468,115	281	1443,41	144	3502,07	451
386	G18	XXXpS/TAQR	300,285	267	349,445	524	741,29	187	881,615	400	310,92	417	413,8	449	1658,63	641
387	G19	XXXpS/TRLR	281,49	296	473,83	414	709,505	203	542,265	557	381,225	344	505,425	389	1388,52	671
388	G20	XXXpS/TLLR	253,615	338	891,19	212	564,75	329	684,76	487	495,815	261	562,605	350	2297,69	575
389	G21	XXXpS/TGEE	10,66	982	0	941	44,985	956	0	862	0	866	0	963	0	962
390	G22	XXXpS/TRVE	170,675	507	400,865	479	491,475	420	542,35	556	464,48	284	268,985	576	2385,87	560
391	G23	XXXpS/TLVE	132,68	594	98,61	812	199,815	791	290,075	687	143,38	640	343,61	503	3269,74	471
392	G24	XXXpS/TGPP	868,045	53	932,84	201	1455,89	21	2044,29	118	1232,29	53	1778,94	102	12008,1	66
393	G25	XXXpS/TVEE	46,025	879	0	976	58,82	947	102,615	793	0	930	102,58	786	1125,91	711
394	G26	EFEPs/TXXX	51,49	855	0,525	927	162,71	834	289,71	688	5,73	845	13,765	932	294,325	888
395	G27	FEPpS/TXXX	54,55	840	0	991	170,3	825	0	974	0	972	18,63	926	0	994
396	G28	XXXpS/TVPP	968,305	43	2070,12	68	1417,97	27	2587,89	55	1717,06	23	3038,65	43	16344,4	13
397	G29	EPPpS/TXXX	37,955	897	14,765	915	195,53	794	0	983	0	982	42,15	889	0	998
398	G30	FFVpS/TXXX	128,09	607	495,805	390	416,525	517	623,12	513	62,455	763	769,48	274	4186,44	386
399	G31	XXXpS/TKVL	164,53	522	568,815	346	613,74	269	1130,38	317	282,32	447	715,7	284	4643,42	355
400	G32	EAVpS/TXXX	237,76	364	327,4	542	608,24	281	958,795	378	224,325	521	612,105	334	5360,44	304
401	G33	FQFpS/TXXX	118,745	632	381,83	496	431,875	503	191,405	734	12,71	832	516,35	381	1991,33	612
402	G34	XXXpS/TKPF	174,69	497	259,89	619	568,03	326	583,45	539	193,76	564	220,955	631	1305,69	683
403	G35	EKFpS/TXXX	132,17	598	158,13	731	416,59	516	16,295	842	147,55	635	69,075	832	757,335	778
404	G36	FGApS/TXXX	202,945	428	17,315	908	474,805	436	1333,78	261	496,455	260	612,875	332	5641,1	287

Table S3

405	G37	XXXpS/TVEF	1182,62	28	1346,52	125	1031,24	87	1737,49	160	321,855	402	2908,16	49	11792,1	73
406	G38	EFFpS/TXXX	297,49	269	392,05	489	711,35	199	876,46	403	216,695	533	652,165	313	4846,25	338
407	G39	FEApS/TXXX	67,585	803	145,48	748	334,18	624	0	932	49,79	785	400,135	458	1162,16	702
408	G40	XXXpS/TVQR	240,42	360	442,43	441	710,75	200	1478,86	229	535,935	240	779,165	268	4739,85	350
409	G41	EPApS/TXXX	388,035	190	317,22	550	757,1	176	945,115	382	271,44	460	808,78	259	6068,5	259
410	G42	FLEpS/TXXX	83,275	737	153,4	738	323,325	641	158,42	753	60,14	770	226,17	625	1205,7	695
411	G43	XXXpS/TKEE	34,195	912	0	946	188,48	801	0	877	0	883	43,865	880	0	964
412	G44	EGEpS/TXXX	29,61	927	0	982	177,835	815	0	940	0	942	62,26	849	0	985
413	G45	FQpS/TXXX	122,94	623	117,04	786	412,095	524	0	986	85,13	730	101,84	787	361,22	866
414	G46	XXXpS/TKPP	199,355	439	280,215	595	441,085	484	231,875	712	142,765	641	267,4	579	1506,37	656
415	G47	EKPpS/TXXX	131,01	601	104,1	801	343,57	617	0	980	6,115	843	51,2	868	0	997
416	G48	FGVpS/TXXX	212,825	408	601,95	326	479,485	430	780,545	447	354,89	369	559,23	354	4472,86	368
417	G49	LEPpS/TXXX	85,275	728	62,565	841	180,565	814	0	975	0	973	0,765	955	0	995
418	G50	PEPpS/TXXX	17,205	966	310,465	556	81,23	925	0	976	0	974	0	996	0	996
419	G52	LFVpS/TXXX	170,96	506	582,53	338	368,13	583	684,1	488	42,61	790	174,635	697	4125,34	389
420	G53	PFVpS/TXXX	247,29	347	778,36	251	551,565	342	1135,08	315	275,645	453	532,005	373	7061,24	216
421	G55	LQFpS/TXXX	101,87	687	374,57	507	303,73	664	527,835	562	137,095	650	243,265	605	3308,71	469
422	G56	PQFpS/TXXX	107,28	668	261,085	618	493,67	416	172,785	743	22,235	823	0	990	892,96	749
423	G58	LGApS/TXXX	197,385	444	399,16	481	486,47	426	1567,57	206	409,745	325	660,72	306	3381,72	459
424	G59	PGApS/TXXX	223,1	387	226,365	645	505,79	392	1018,58	359	177,66	589	248,105	597	2644,23	531
425	G61	LEApS/TXXX	102,985	682	241,335	634	175,17	817	327,795	666	57,58	773	193,93	663	574,57	814
426	G62	PEApS/TXXX	82,415	739	121,15	782	219,875	768	188,35	735	26,45	818	0	981	112,42	930
427	G64	LLEpS/TXXX	102,395	685	315,555	552	211,645	776	0	946	161	614	170,23	703	1087,45	720
428	G65	PLEpS/TXXX	89,525	719	98,915	811	213,94	773	0	947	0	946	44,03	878	146,695	920
429	G67	LQPpS/TXXX	108,24	664	119,27	785	381,305	565	401,645	625	138,8	645	52,735	863	68,395	935
430	G68	PQPpS/TXXX	100,64	692	113,81	790	246,52	737	459,215	596	152,56	629	43,775	881	234,87	903
431	G70	LGVpS/TXXX	179,545	489	659,885	300	509,35	389	1488,64	227	434,285	304	548,59	366	5731,53	282
432	G71	PGVpS/TXXX	209,68	417	638,905	310	533,065	359	2148,62	100	618,425	196	634,005	321	6011,2	260
433	H1	XXXpS/TEFF	210,435	415	137,3	759	353,985	607	370,36	640	115,66	687	178,41	693	3033,49	496
434	H2	XXXpS/TFFF	289,27	284	367,19	512	465,36	446	821,015	428	260,59	469	1018,09	215	5963,95	267
435	H3	XXXpS/TPFF	239,245	362	63,375	840	360,895	599	56,82	817	25,525	819	130,515	754	591,935	809
436	H4	XXXpS/TEGR	401,22	172	485,915	403	546,18	350	1134,86	316	249,855	489	433,88	434	6805,57	230
437	H5	XXXpS/TFGR	389,27	186	734,855	269	733,585	190	1022,82	358	483,22	274	1322,56	157	7215,39	207
438	H6	XXXpS/TPGR	138,56	573	94,11	815	368,065	584	0	901	81,615	737	140,93	743	107,025	931
439	H7	XXXpS/TRFE	126,62	613	21,765	902	287,765	682	23,98	835	0	926	153,205	728	382,555	860
440	H8	XXXpS/TLFE	154,775	542	182,635	696	185,425	804	347,63	656	101,285	707	295,805	547	1097,05	717
441	H9	XXXpS/TQFE	75,435	773	0	971	157,825	838	68,38	810	22,43	821	67,255	838	253,135	900

Table S3

442	H10	XXXpS/TRAP	175,41	495	30,135	889	432,015	501	427,63	611	175,035	596	236,895	614	971,995	738
443	H11	XXXpS/TLAP	314,915	256	462,915	424	478,69	431	1519,19	215	575,335	220	996,1	220	4592,9	358
444	H12	XXXpS/TQAP	176,905	494	105,15	798	410,515	526	771,505	454	7,125	842	164,02	711	1391,75	670
445	H13	XXXpS/TEFP	252,335	339	272,71	608	399,56	541	904,865	394	162	612	310,99	525	2578,71	543
446	H14	XXXpS/TFFP	251,725	342	521,745	377	556,43	336	592,265	534	382,5	342	618,265	330	2931,67	505
447	H15	XXXpS/TPFP	115,625	639	53,31	852	185,28	806	0	897	0	898	54,835	861	233,115	905
448	H16	XXXpS/TEGL	190,25	461	170,405	715	310,195	656	507,3	572	153,255	628	250,93	595	2894,3	508
449	H17	XXXpS/TFGL	340,675	228	822,79	230	605,485	283	1253,76	279	526,36	244	1405,12	149	8038,41	170
450	H18	XXXpS/TPGL	70,185	792	122,42	780	157,23	840	118,055	785	32,525	807	50,55	870	364,745	863
451	H19	XXXpS/TRFF	214,54	404	347,63	525	530,815	362	143,405	764	266,575	467	420,615	445	1761,64	633
452	H20	XXXpS/TLFF	215,77	398	785,275	244	597,72	290	1211,2	293	172,515	599	1145,55	186	2635,6	533
453	H21	XXXpS/TQFF	152,375	547	230,19	643	449,56	470	258,92	701	118,375	679	244	603	1403,32	669
454	H22	XXXpS/TRGR	185,205	473	552,665	355	685,715	219	466,535	592	301,01	433	262,45	584	2104,45	601
455	H23	XXXpS/TLGR	309,355	261	1017,86	177	723,685	192	1575,17	203	592,64	212	1132,92	189	7731,56	185
456	H24	XXXpS/TQGR	156,09	539	193,64	684	579,14	308	410,38	620	94,415	716	178,595	692	1513,45	654
457	H25	XXXpS/TGKR	218,24	392	274,855	603	832,62	145	278,105	693	239,46	505	186,8	677	1473,94	660
458	H26	ERApS/TXXX	423,995	159	453,98	428	616,015	266	1452,28	231	684,15	177	647,1	314	7848,79	173
459	H27	RARpS/TXXX	2240,08	3	3777,68	12	1511,45	16	3723,8	7	1900,55	18	5958,16	6	16291,3	14
460	H28	XXXpS/TVPE	496,73	126	267,095	613	832,04	146	1372,65	249	467,695	282	809,895	257	7089,35	215
461	H29	EPEpS/TXXX	79,7	751	150,135	741	115,21	892	0	948	0	947	34,35	901	424,015	847
462	H30	REPpS/TXXX	26,76	939	0	992	44,335	957	0	977	67,715	758	3,88	952	116,105	928
463	H31	XXXpS/TVVP	264,675	320	502,32	383	591,805	300	1294,04	272	338,555	382	581,135	345	4085,14	396
464	H32	EAPpS/TXXX	68,615	800	6,41	923	215,495	772	0	971	0	969	26,46	913	70,005	934
465	H33	RPAPpS/TXXX	1140,97	29	3995,38	9	1627,92	14	3159,78	22	1927,68	17	4700,5	13	16780	9
466	H34	XXXpS/TKLL	149,07	553	424,345	457	307,67	659	0	884	48,16	787	335,82	509	4001,94	409
467	H35	EVVpS/TXXX	143,92	562	350,455	523	389,975	551	181,795	739	67,725	757	216,335	636	1155,29	703
468	H36	RVVpS/TXXX	657,425	84	1734,4	95	1023,91	88	1894,26	133	1091,52	67	2162,73	75	11545,5	79
469	H37	XXXpS/TGKL	223,215	386	429,01	452	821,765	148	826,2	424	302,5	431	417,17	447	2546,13	547
470	H38	ERVpS/TXXX	245,32	350	643,64	308	578,195	310	863,865	412	297,415	436	410,255	451	5391,13	303
471	H39	RVRpS/TXXX	1751,7	9	3218,51	27	1326,89	40	3189,2	19	1496,75	36	3187,5	36	16042,5	16
472	H40	XXXpS/TVPF	3114,24	1	4820,13	4	2030,43	8	3246	17	1964,55	16	7112,8	2	17959,1	5
473	H41	EPFpS/TXXX	319,3	246	302,735	567	501,395	399	417,68	616	97,985	710	490,86	396	4087,56	395
474	H42	RFPpS/TXXX	140,2	569	1206,79	140	532,625	360	1076,03	333	715,965	162	657,005	308	7124,55	212
475	H43	XXXpS/TVKR	234,875	367	813,38	235	756,505	177	1040,9	350	367,215	358	606,29	335	2574,65	544
476	H44	EAApS/TXXX	401,29	171	405,445	471	592,46	296	812,945	434	387,56	338	605,065	336	5629,53	288
477	H45	RAApS/TXXX	1989,67	6	4395,29	6	2260,75	4	3755,2	6	2382,66	6	5581,72	7	16992,9	8
478	H46	XXXpS/TKPE	134,375	586	124,575	777	404,465	534	181,065	742	126,73	661	98,585	791	278,105	891

Table S3

479	H47	EKEpS/TXXX	86,36	726	65,81	836	247,155	736	0	943	42,47	791	46,835	873	0	986
480	H48	REKpS/TXXX	347,855	220	352,175	522	571,465	319	502,85	574	275,105	457	494,41	394	2824,62	514
481	H49	LEEpS/TXXX	47,265	875	122,85	779	102,93	905	0	936	0	937	19,34	925	317,925	881
482	H50	PEEpS/TXXX	50,365	859	0	981	153,675	844	0	937	0	938	0	983	0	984
483	H52	LFPpS/TXXX	198,13	442	420,435	461	499,52	404	327,695	667	124,745	666	52,635	864	1736,02	634
484	H53	PFPPpS/TXXX	205,13	425	626,51	315	515,65	381	664,17	496	266,925	466	159,935	716	3678,07	435
485	H55	LPVpS/TXXX	361,225	210	1234,51	137	575,855	315	1506,9	222	468,855	280	1263,79	166	9785,87	118
486	H56	PPVpS/TXXX	260,895	328	1210,68	139	576,24	314	1580,77	200	578,11	219	1128,34	191	7833,22	175
487	H58	LGFpS/TXXX	169,505	510	760,28	258	374,065	576	1326,69	263	371,55	352	388,7	470	3820,69	421
488	H59	PGFpS/TXXX	200,045	435	814,98	234	448,325	473	873,925	404	234,41	512	396,09	460	3203,43	473
489	H61	LEFpS/TXXX	53,655	846	367,23	511	75,205	932	0	956	0	956	189,385	673	697,495	790
490	H62	PEFpS/TXXX	103,67	677	258,41	620	289,52	679	94,32	796	0	957	15,15	930	308,22	885
491	H64	LFAPpS/TXXX	315,935	254	1436,99	119	718,6	194	1667,82	177	608,93	201	1201,95	174	7776,69	182
492	H65	PFAPpS/TXXX	569,62	106	2315,3	55	993,485	96	2590,45	54	1036,83	76	1884,6	93	12378,4	59
493	H67	LQEpS/TXXX	83,815	736	234,82	636	194,72	796	497,96	581	71,5	750	67,31	837	584,54	811
494	H68	PQEpS/TXXX	79,165	755	65,69	837	123,315	879	157,82	754	0	951	0	985	39,645	945
495	H70	LGPpS/TXXX	116,28	637	262,415	616	295,31	672	775,545	451	134,13	653	65,44	843	321,615	880
496	H71	PGPpS/TXXX	128,925	604	302,2	569	356,92	604	593,58	530	0	978	38,72	895	342,27	871
497	I1	XXXpS/TRKF	349,885	219	268,495	611	619,41	259	504,275	573	350,135	373	425,24	442	3188,96	475
498	I2	XXXpS/TLKF	388,055	189	577,005	342	745,04	185	1182,77	300	574,98	221	861,68	245	8146,49	168
499	I3	XXXpS/TQKF	296,46	272	192,425	687	623,49	257	819,63	429	420,255	316	208,535	645	2934,22	504
500	I4	XXXpS/TFPR	951,02	45	2411,35	49	1421,19	26	2490,71	66	1643,5	25	3565,23	26	15435,1	20
501	I5	XXXpS/TPPR	114,715	641	64,375	838	409,205	528	216,145	721	82,11	735	127,79	757	340,34	873
502	I6	XXXpS/TAPR	77,39	759	244,16	632	242,975	740	124,83	778	11,23	837	0	957	1471	661
503	I7	XXXpS/TFKE	158,92	532	127,45	773	381,7	564	410,165	621	164,66	608	172,345	701	1490,98	658
504	I8	XXXpS/TPKE	93,83	707	0	957	170,24	826	0	902	0	902	42,825	887	0	973
505	I9	XXXpS/TAKE	260,945	327	95,89	814	306,74	660	679,75	491	234,795	510	189,9	672	1485,76	659
506	I10	XXXpS/TLLP	194,21	452	407,96	469	381,3	566	977,15	372	416,03	320	739,86	278	3587,89	443
507	I11	XXXpS/TQLP	183,86	478	153,195	739	360,96	598	357,435	649	96,875	714	179,765	691	1696,3	638
508	I12	XXXpS/TGLP	189,605	462	199,305	681	363,75	595	460,145	595	118,57	678	219,74	633	2303,06	573
509	I13	XXXpS/TRKP	201,225	432	273,62	606	594,05	294	157,24	755	259,43	470	301,115	539	1327,45	678
510	I14	XXXpS/TLKP	356,27	214	597,94	329	817,365	152	1627,33	186	775,64	143	695,54	289	5551,68	291
511	I15	XXXpS/TQKP	208,835	419	192,31	688	709,275	204	507,35	571	81,025	739	191,715	668	2205,88	584
512	I16	XXXpS/TFPL	1634,78	12	3788,23	11	2069,29	7	3411,91	12	2311,28	9	6787,71	3	19342,1	3
513	I17	XXXpS/TPPL	68,105	801	33,435	881	243,8	739	0	909	0	907	0,42	956	55,33	939
514	I18	XXXpS/TAPL	1997,17	5	3111,66	29	2488,96	3	3415,55	10	2509,97	4	5000,84	11	18871,9	4
515	I19	XXXpS/TFKF	223,8	383	584,5	336	746,385	183	724,36	474	319,965	406	699,855	287	3529,34	447

Table S3

516	I20	XXXpS/TPKF	135,87	582	221,09	653	461,63	454	160,07	751	247,41	491	124,815	762	427,285	846
517	I21	XXXpS/TAKF	618,565	93	1740,36	94	1264,63	44	2179,32	95	1172,65	59	2086,21	81	12103,4	61
518	I22	XXXpS/TLPR	458,31	140	1747,18	92	1202,68	48	2100,64	109	966,845	89	1844,55	96	9871,58	113
519	I23	XXXpS/TQPR	214,51	405	677,48	294	797,945	163	936,525	386	329,995	391	507,895	386	4895,85	334
520	I24	XXXpS/TGPR	169,945	508	550,82	356	799,21	161	847,185	416	359,68	362	446,425	426	4412,01	370
521	I25	EERpS/TXXX	101,005	691	129,78	765	401,115	539	334,425	665	117,72	682	97,46	794	1585,68	648
522	I26	RREpS/TXXX	633,49	90	942,32	194	1047,91	82	1240,44	283	418,22	317	1183,62	176	7545,38	195
523	I27	FERpS/TXXX	125,98	615	385,38	493	447,625	475	0	995	108,025	697	293,755	550	2181,88	587
524	I28	EFQpS/TXXX	157,4	535	323,725	546	282,41	689	641,255	507	163,945	611	164,03	710	3138,9	484
525	I29	RQFpS/TXXX	74,345	781	861,655	221	279,86	690	1292,89	273	781,38	141	774,265	271	4494,16	364
526	I30	FFQpS/TXXX	195,38	449	734,78	270	521,98	376	1067,39	335	395,515	336	453,525	423	4328,58	378
527	I31	EPKpS/TXXX	357,64	212	644,635	307	909,62	118	993,91	365	569,825	223	674,53	297	6999,1	222
528	I32	RKPpS/TXXX	52,19	851	381,065	497	277,265	695	285,815	690	250,675	487	130,57	753	1054,15	723
529	I33	FPKpS/TXXX	635,575	89	1674,63	101	1366,31	34	2003,66	121	1168,95	60	2275,35	69	11890	70
530	I34	EGLpS/TXXX	49,585	863	219,875	656	313,305	653	277,055	694	128,295	659	251,02	594	1778,47	629
531	I35	RLGpS/TXXX	345,545	223	538,62	365	611,975	272	1620,24	190	222,87	522	789,075	264	6142,12	255
532	I36	FGLpS/TXXX	133,895	589	464,27	423	435,195	493	824,76	426	284,03	445	530,425	374	4579,36	359
533	I37	EELpS/TXXX	74,73	779	0	989	190,67	799	0	968	21,14	825	0	992	188,84	910
534	I38	RLEpS/TXXX	34,425	909	263,69	615	106,415	900	63,86	812	178,72	585	216,835	635	2283,99	578
535	I39	FELpS/TXXX	37,055	901	93,345	817	221,78	765	0	969	0	967	0	993	123,855	924
536	I40	EFQpS/TXXX	94,255	705	93,27	818	328,125	635	0	960	36,23	800	41,17	892	1410,59	667
537	I41	RGFpS/TXXX	263,915	322	1901,75	81	639,05	245	1888,99	136	996,085	86	1996,26	87	11326,4	83
538	I42	FFGpS/TXXX	195,39	448	405,74	470	512,975	386	512,455	568	203,36	553	282,58	561	3518,24	450
539	I43	EQRpS/TXXX	168,375	514	396,62	484	551,515	343	365,405	645	147,925	634	176,95	695	2828,11	513
540	I44	RRQpS/TXXX	1296	22	2533,37	45	1148,16	57	2560,59	59	1326,42	47	2806,94	54	13486,5	48
541	I45	FQRpS/TXXX	216,525	395	920,105	204	762,275	174	1063,43	337	320,645	405	671,98	298	5262,69	310
542	I46	EGQpS/TXXX	85,075	729	89,19	824	318,775	646	0	992	53,16	779	78,78	816	1065,94	722
543	I47	RQGpS/TXXX	196,76	447	360,905	517	483,875	427	848,69	414	207,555	548	290,275	556	2472,77	550
544	I48	FGQpS/TXXX	176,98	493	713,315	276	644,98	240	617,17	517	329,33	393	268,595	578	3488,9	453
545	I49	LVQpS/TXXX	325,25	242	1175,55	143	941,78	111	1691,25	172	598,545	204	1028,79	213	8474,07	158
546	I50	XXXpS/TKGE	174,705	496	63,485	839	787,595	166	0	882	0	886	25,395	916	466,675	836
547	I52	PEKpS/TXXX	128,06	608	209,47	668	401,51	538	268,685	696	156,36	624	49,995	871	832,635	762
548	I53	PVQpS/TXXX	77,68	758	564,91	348	262,425	716	1164,37	310	427,645	311	441,835	429	5772,76	281
549	I55	PLLpS/TXXX	91,065	713	477,82	408	273,935	696	1050,47	342	310,275	420	621,425	328	4112,82	392
550	I58	PQGpS/TXXX	96,33	700	169,2	717	298,1	669	0	965	0	966	43,515	884	121,665	925
551	I61	LVGpS/TXXX	126,76	612	522,62	376	402,745	537	959,875	377	240,695	503	305,88	532	3743,88	426
552	I62	XXXpS/TKGF	138,18	574	395,64	485	528,915	366	414,88	618	328,015	396	86,065	806	1079,02	721

Table S3

553	I64	PRRpS/TXXX	455,115	142	2396,61	51	1041,75	85	2374,54	76	744,86	151	2125,67	77	15074,4	25
554	I65	PVGpS/TXXX	119,57	628	177,93	702	370,215	580	916,55	392	242,725	496	87,86	804	1890,97	621
555	I67	PLQpS/TXXX	181,985	483	592,125	332	526,29	371	1590,23	199	430,25	307	549,51	365	6002,08	261
556	I70	PQKpS/TXXX	144,715	559	429,345	451	789,885	165	1442,15	232	251,75	486	182,91	682	3736,83	428
557	J1	XXXpS/TERP	369,24	203	496,53	387	617,225	264	1028,17	355	381,985	343	287,96	558	8491,02	155
558	J2	XXXpS/TLVL	242,64	354	415,6	464	320,79	644	821,67	427	613,885	199	730,19	283	6546,17	240
559	J3	XXXpS/TQVL	194,805	450	203,53	676	500,425	401	478,865	588	216,43	534	266,635	580	4215,45	384
560	J4	XXXpS/TEAL	210,555	414	210,775	664	432,76	498	349,845	653	126,68	662	373,395	479	5951,49	268
561	J5	XXXpS/TPLF	115,5	640	103,875	802	200,095	790	0	905	82,805	734	128,63	755	569,9	815
562	J6	XXXpS/TALF	797,13	60	1787,4	88	1064,14	77	1503,34	223	765,68	145	3010,93	47	12052,9	65
563	J7	XXXpS/TRRF	269,505	316	385,66	492	592,165	298	438,125	607	331,835	388	395,175	461	1249,66	692
564	J9	XXXpS/TAVR	263,585	323	655,595	303	503,2	395	1365,95	253	561,66	227	770,76	272	4783,07	346
565	J10	XXXpS/TRAR	188,165	464	343,875	530	379,755	569	498,015	580	332,875	387	360,915	494	1045,27	725
566	J11	XXXpS/TQLE	59,64	825	0	973	66,355	940	0	920	5,96	844	7,295	945	168,785	916
567	J12	XXXpS/TGLE	48,815	870	0	943	15	978	0	868	1,755	850	22,205	923	155,34	919
568	J13	XXXpS/TEFR	205,795	422	282,675	589	340,605	618	593,16	531	164,185	610	340,545	506	2819,74	515
569	J14	XXXpS/TLKE	226,325	379	329,345	538	413,39	523	984,965	369	289,635	440	323,7	514	4320,62	379
570	J15	XXXpS/TQKE	101,075	690	50,4	860	331,02	629	181,4	741	98,725	708	92,67	800	759,01	777
571	J16	XXXpS/TEGE	44,595	881	0	935	114,415	894	0	855	0	857	0	959	413,17	851
572	J17	XXXpS/TPLP	50,835	858	0	959	86,46	917	0	906	0	904	12,345	937	159,55	918
573	J18	XXXpS/TALP	569,715	105	918,895	205	924,295	115	1988,99	122	880,71	110	1524,26	125	11215	85
574	J19	XXXpS/TRRP	158,835	533	389,805	490	579,16	307	622,485	515	347,205	375	374,685	478	1437,36	664
575	J20	XXXpS/TPVL	59,615	826	111,4	792	143,69	855	139,23	767	108,89	693	143,765	739	501,665	830
576	J21	XXXpS/TAVL	336,18	232	1056,22	166	680,025	222	1612,45	193	749,42	149	1489,89	133	8110,61	169
577	J22	XXXpS/TRAL	153,885	543	646,455	305	490,16	422	694,005	484	243,435	495	656,55	309	3149,96	482
578	J23	XXXpS/TQLF	118,24	635	334,86	537	278,695	692	68,805	809	116,035	685	353,345	496	2377,43	562
579	J24	XXXpS/TGLF	128,605	605	578,28	340	269,63	705	158,68	752	0	873	311,555	522	2680,01	528
580	J25	XXXpS/TGVL	118,51	633	401,02	478	313,675	652	385,33	635	206,215	549	299,775	542	3324,04	466
581	J26	EKGpS/TXXX	86,775	724	102,46	806	326,81	636	253,2	703	125,325	663	55,62	859	311,335	884
582	J27	RGKpS/TXXX	319,005	247	2329,64	54	1101,89	71	2617,24	51	1549,02	31	1574,4	122	12555,3	57
583	J28	XXXpS/TVLF	534,75	116	2049,17	72	780,73	169	2106,16	108	861,95	116	2136,4	76	12053,1	64
584	J29	RRFpS/TXXX	1023,29	37	3481,3	20	1450,26	22	2647,21	49	1369,2	41	3534,75	27	13073,8	51
585	J30	FFRpS/TXXX	356,92	213	1745,5	93	638,615	246	1617,9	191	555,535	231	1614,63	117	7125,53	211
586	J31	XXXpS/TVVR	277,635	303	1022,94	174	583,705	304	1483,7	228	589,51	214	927,66	233	5944,44	269
587	J32	RQPpS/TXXX	26,12	945	202,675	677	96,38	909	107,48	790	42,385	792	120,495	767	565,885	816
588	J33	FPQpS/TXXX	451,435	145	930,695	203	783,505	168	1416,61	240	493,665	266	1464,01	138	7037,42	218
589	J34	XXXpS/TKLE	69,32	796	31,095	885	142,75	858	133,305	772	53,07	780	0	968	0	967

Table S3

590	J35	RKApS/TXXX	93,23	709	689,92	286	460,005	456	1320,05	267	454,805	292	214,185	640	5463,56	298
591	J36	FAKpS/TXXX	662,12	83	1542,52	109	1338,26	39	2914,29	32	1974,29	15	2195,12	72	9070,54	139
592	J37	XXXpS/TGKE	91,685	711	48,125	865	340,04	619	171,845	744	0	871	30,145	906	274,835	894
593	J38	EKKpS/TXXX	122,135	626	195,315	682	497,055	412	807,86	435	234,585	511	180,58	689	1261,36	691
594	J39	RKKpS/TXXX	215,45	400	745,395	265	872,65	135	1768,01	156	606,965	202	483,705	399	3564,19	445
595	J40	XXXpS/TVLP	192,535	455	533,005	369	408,49	529	1237,06	286	366,75	359	497,55	393	4808,32	344
596	J41	RLfpS/TXXX	423,225	160	1340,55	127	802,32	157	1737,77	159	501,49	255	2193,44	73	9841,21	116
597	J42	FFLpS/TXXX	161,425	528	783,81	246	380,505	568	607,165	523	257,565	473	678,39	296	4836,97	339
598	J43	XXXpS/TVVL	291,78	278	976,255	185	371,005	579	2051,56	117	764,785	146	1365,3	150	4250,23	380
599	J44	RGPpS/TXXX	53,805	844	397,565	482	324,7	638	557,65	548	254,165	481	0	997	2096,09	602
600	J45	FPGpS/TXXX	127,86	609	308,875	558	493,39	417	356,57	650	89,5	721	302,98	535	3009,57	498
601	J46	XXXpS/TKLF	124,255	618	403,225	474	436,02	492	0	883	0	888	303,015	534	1560,81	650
602	J47	RRGpS/TXXX	648,78	85	1128,9	154	896,99	122	1490,97	225	556,765	229	1252,16	168	9488,1	124
603	J48	FGRpS/TXXX	42,76	884	222,05	652	370,165	581	390,245	631	98,245	709	195,46	661	1106,32	715
604	J49	FKGpS/TXXX	131,27	600	274,09	604	671,325	225	739,11	467	367,855	357	168,1	705	1141,86	706
605	J50	XXXpS/TKAR	161,95	527	403,125	475	779,41	170	389,54	633	106,165	698	148,765	733	901,445	747
606	J52	LFRpS/TXXX	379,63	197	1780,21	89	1020,42	90	1703,05	168	803,82	132	2022	85	9600,19	122
607	J53	PVRpS/TXXX	388,94	187	1419,63	121	1078,56	73	2124,82	107	796,245	138	1477,84	135	10257,1	103
608	J55	LPQpS/TXXX	340,035	229	838,26	227	887,845	129	1364,72	254	375,355	349	1021,43	214	8843,78	146
609	J58	LAKpS/TXXX	585,635	100	1904,59	80	1503,41	17	2755,28	40	1333,69	45	2066,46	83	11153,1	87
610	J61	FKKpS/TXXX	142,305	564	38,105	875	756,375	178	1139,5	314	310,53	418	210,925	644	2378,38	561
611	J62	XXXpS/TKAL	114,5	643	443,84	438	462,755	449	1890,72	135	553,795	232	390,86	468	2445,94	553
612	J64	LFLpS/TXXX	122,56	624	880,67	216	452,16	464	999,74	363	318,46	409	731,215	282	6439,69	246
613	J65	PVLpS/TXXX	103,29	679	674,63	295	461,82	453	1422	238	398,505	332	550,34	363	5830,76	277
614	J67	LPGpS/TXXX	134,455	585	304,815	565	477,055	432	1399,79	244	379,06	346	297,29	545	3681,89	434
615	J70	LGRpS/TXXX	233,74	369	987,88	182	869,48	138	2246,06	86	735,025	158	1311,96	159	9608,21	121
616	J8	XXXpS/TPVR	112,535	648	91,405	820	283,625	688	201,065	727	194,975	563	93,74	799	259,135	899
617	K1	XXXpS/TERE	84,165	735	0	938	143,07	857	49,325	825	0	861	37,46	896	1323,63	680
618	K2	XXXpS/TFRE	113,495	646	215,195	660	277,46	694	296,635	682	181,805	579	242,535	607	2736	522
619	K3	XXXpS/TQGP	168,985	512	174,66	706	385,405	558	569,23	546	124,9	665	195,34	662	2874,09	510
620	K4	XXXpS/TEQP	216,375	396	183,035	695	388,775	554	772,26	453	181,44	581	364,095	491	4494,03	365
621	K5	XXXpS/TFQP	254,675	336	803,28	240	588,045	301	1419,75	239	620,71	193	970,055	226	6902,89	225
622	K6	XXXpS/TAFL	317,135	251	938,275	199	594,305	293	890,98	398	446,3	297	1217,23	172	6410,99	249
623	K7	XXXpS/TREL	76,245	765	51,605	856	182,88	809	118,85	784	28,445	814	113,295	773	650,405	795
624	K8	XXXpS/TLEL	132,175	597	327,87	541	166,505	833	867,345	408	175,605	595	472,185	408	3087,53	490
625	K9	XXXpS/TAGF	40,07	888	136,04	760	172,445	821	206,025	726	109,755	692	58,275	856	422,905	848
626	K10	XXXpS/TRQF	104,31	676	285,7	586	288,025	681	32,795	832	26,88	817	154,685	726	953,615	741

Table S3

627	K11	XXXpS/TLQF	279,12	302	1036,62	172	403,865	535	1395,43	245	550,265	233	1460,09	139	7268,82	206
628	K12	XXXpS/TGFR	142,09	565	292,66	578	357,525	603	649,69	503	382,87	341	339,55	507	1654,51	642
629	K13	XXXpS/TERF	182,09	482	366,545	514	285,305	685	548,735	552	214,74	536	499,545	392	5048,69	321
630	K14	XXXpS/TFRF	173,025	502	563,46	349	398,975	542	353,27	651	256,77	475	847,475	247	3317,19	467
631	K15	XXXpS/TQVR	155,025	541	322,48	548	441,44	483	614,17	520	318,55	408	272,215	569	1805,2	625
632	K16	XXXpS/TEAR	138,145	575	307,06	561	389,41	552	409,56	622	119,135	676	369,43	484	2362,52	564
633	K17	XXXpS/TFAR	197,335	445	758,955	260	497,935	409	990,395	366	491,54	267	1497,55	132	3622,34	442
634	K18	XXXpS/TALE	181,795	484	164,54	724	358,65	601	491,23	584	117,4	683	299,655	543	4007,71	408
635	K19	XXXpS/TRRE	80,95	747	120,565	783	267,79	710	206,2	725	103,02	706	151,675	730	719,79	787
636	K20	XXXpS/TLRE	70,355	790	323,61	547	106,92	898	309,3	676	75,835	745	411,81	450	1329,59	677
637	K21	XXXpS/TAGP	311,065	259	735,01	268	753,36	179	1488,85	226	241,49	501	971,445	224	6069,23	258
638	K22	XXXpS/TRQP	79,96	750	177,185	703	253,1	728	0	931	87,92	724	198,545	656	561,34	820
639	K23	XXXpS/TLQP	218,875	390	774,16	252	476,135	435	1593,51	198	579,075	218	1136,88	187	5196,66	313
640	K24	XXXpS/TGFL	105,745	670	473,71	415	315,47	650	435,335	608	184,39	573	468,645	413	2897,23	507
641	K25	XXXpS/TGGP	104,935	673	204,61	673	386,74	557	341,705	660	85,98	728	232,375	618	2038	607
642	K26	EEKpS/TXXX	59,96	824	47,615	867	129,705	870	141,69	765	56,74	774	53,43	862	295,905	887
643	K27	RLKpS/TXXX	772,54	64	2030,84	74	1099,72	72	1814,62	148	1036,24	77	2317,32	67	10032,2	110
644	K28	XXXpS/TVFL	164,075	524	402,15	477	383,37	562	383,5	638	158,01	620	311,18	524	1529,23	653
645	K29	ELLpS/TXXX	58,21	830	328,46	540	156,71	841	38,04	829	27,11	815	262,61	583	1716,38	637
646	K30	FRGpS/TXXX	179,705	488	701,565	282	365,13	593	1174,89	303	447,545	296	475,13	406	4667,88	353
647	K31	XXXpS/TVGF	613,28	94	2403,82	50	573,105	318	2276,57	82	220,87	526	3148,76	38	13174,9	50
648	K32	EQGpS/TXXX	71,78	786	16,135	910	169,125	830	0	964	0	965	13,14	934	0	990
649	K33	FPRpS/TXXX	717,445	71	1676,88	100	695,045	211	1968,3	126	884,265	108	2864,42	52	8433,37	161
650	K34	XXXpS/TKFR	76	767	573,345	345	592,235	297	183,95	737	61,81	766	259,64	589	562,575	818
651	K35	EVRpS/TXXX	263	324	1084,26	161	416,11	518	1204,71	296	489,355	270	711,485	285	3936,71	412
652	K36	FAQpS/TXXX	495	127	1117,79	155	536,13	355	1625,77	188	927,145	99	1103,67	194	5964,9	266
653	K37	XXXpS/TGVR	136,38	581	559,36	351	391,66	547	898,885	395	328,67	395	392,245	465	1608,19	645
654	K38	ERRpS/TXXX	318,2	249	1070,33	163	664,7	228	1736,55	161	636,91	188	880,74	241	5896,06	273
655	K39	RQKpS/TXXX	517,025	123	1027,65	173	896,785	123	1696,27	171	714,1	163	699,47	288	6779,18	232
656	K40	XXXpS/TVLE	276,83	304	486,725	402	312,335	654	865,9	410	166,2	606	685,62	295	5874,47	274
657	K41	ELQpS/TXXX	89,655	718	214,795	661	285,055	686	291,29	686	91,07	719	182,415	683	1632,72	643
658	K42	FRKpS/TXXX	480,505	133	2583,95	43	934,385	114	2081,47	111	1065,75	71	1987,8	88	10484,6	99
659	K43	XXXpS/TVGP	230,3	375	1045,99	169	554,665	337	1514,21	218	690,195	173	1150,43	184	6783,97	231
660	K44	EQKpS/TXXX	84,37	733	189,405	692	273,64	698	326,445	669	242,01	499	165,745	709	1120,39	713
661	K45	FPLpS/TXXX	201,565	430	849,21	225	448,86	471	919,35	391	493,78	265	693,81	291	5523,02	293
662	K46	XXXpS/TKFL	110,36	654	479,875	405	461,935	452	508,3	570	233,05	515	261,875	585	1026,54	729
663	K47	EVLpS/TXXX	94,955	702	405,21	472	203,205	787	237,795	709	209,97	544	424,455	443	2939,15	503

Table S3

664	K48	FAGpS/TXXX	114,36	644	291,025	581	344,09	616	502,55	575	311,825	415	211,52	643	2711,29	526
665	K49	FKLpS/TXXX	85,545	727	250,82	626	309,985	657	12,205	845	196,95	561	43,76	882	476,32	835
666	K50	LKLpS/TXXX	79,635	752	448,75	433	255,435	725	430,21	610	177,65	590	0	994	1984,49	614
667	K52	LRGpS/TXXX	110,33	655	703,4	280	461,495	455	1092,87	326	416,86	319	0	991	4816,03	342
668	K53	PRGpS/TXXX	103,155	680	682,03	291	452,16	463	606,94	524	275,105	456	914,405	236	3033,59	495
669	K55	LPRpS/TXXX	326,46	240	1878,36	83	889,74	128	1686,67	174	842,815	120	1531,52	124	7198,1	209
670	K56	PPRpS/TXXX	356,175	215	1999,25	75	901,97	121	1952,01	127	876,83	112	1777,57	103	9165,48	135
671	K58	LAQpS/TXXX	249,185	345	1037,92	171	707,745	206	1313,44	268	623,475	191	777,57	269	4374,96	373
672	K59	PAQpS/TXXX	290,965	281	852,24	224	879,41	134	1434,35	234	541,35	237	940,01	230	7202,99	208
673	K61	FKQpS/TXXX	88,04	722	311,385	555	558,045	333	307,885	677	177,995	587	118,275	770	627,055	798
674	K62	LKQpS/TXXX	82,38	741	172,97	709	396,33	544	803,115	437	413,84	322	277,49	568	1190,89	698
675	K64	LRKpS/TXXX	340,78	227	2278,53	58	1105,2	69	2467,45	68	935,91	98	1695,35	109	13879,2	41
676	K65	PRKpS/TXXX	250,085	344	1431,09	120	960,24	105	2091,44	110	719,64	161	585,82	342	9871,42	114
677	K67	LPLpS/TXXX	186,01	471	884,51	215	530,02	363	1547,97	208	535,84	241	1036,86	207	9196,9	132
678	K68	PPLpS/TXXX	179,36	490	658,52	301	607,115	282	1971,18	125	368,33	356	666,005	304	10087,8	109
679	K70	LAGpS/TXXX	103,05	681	534,28	366	506,235	391	1534,79	212	508,43	250	519,52	380	5978,85	264
680	K71	PAGpS/TXXX	109,825	658	251,61	624	499,7	403	1212,01	292	500,77	256	192,32	666	5931,93	270
681	L1	XXXpS/TEER	57,615	831	0,035	928	131,55	869	0	853	38,055	799	43,59	883	794,77	769
682	L2	XXXpS/TFER	179,1	491	420,695	460	325,565	637	871,695	407	336,225	384	822,37	254	6672,16	237
683	L3	XXXpS/TPER	66,275	810	0	954	133,34	865	0	895	0	897	4,59	951	0	971
684	L4	XXXpS/TEQE	39,105	892	19,96	905	0	989	0	857	0	860	0	961	267,625	898
685	L5	XXXpS/TFQE	104,46	675	171,67	712	207,675	781	464,525	593	115,735	686	261,345	586	3037,18	494
686	L6	XXXpS/TPQE	30,095	925	0	962	16,77	977	225,22	717	0	909	0	976	0	977
687	L7	XXXpS/TEKP	234,51	368	291,78	580	527,815	369	791,63	443	352,88	370	455,075	421	4235,62	381
688	L8	XXXpS/TFKP	110,94	653	345,005	529	345,21	613	1029,64	354	414,735	321	325,44	513	1809,27	623
689	L9	XXXpS/TPKP	104,56	674	62,47	842	150,44	847	52,86	822	68,83	755	69,49	831	55,435	938
690	L10	XXXpS/TRPL	110,31	656	419,75	462	313,86	651	577,745	542	198,435	558	302,93	536	3301,12	470
691	L11	XXXpS/TLPL	995,715	41	2851,04	35	1103,46	70	3045,62	25	1536,41	34	3837,09	20	15315,7	21
692	L118	XXXpS/TPQF	225,685	380	25,53	897	146,19	853	18,945	839	212,81	541	66,945	839	203,04	909
693	L12	XXXpS/TQPL	298,31	268	547,705	359	574,79	317	1239,31	284	400,705	329	669,895	299	4983,02	327
694	L13	XXXpS/TEEL	37,82	898	6,825	922	29,995	968	0	851	0	854	22,2	924	63,845	936
695	L14	XXXpS/TFEL	212,505	409	424,185	458	330,115	632	987,79	367	287,48	442	764,19	275	5002,38	325
696	L15	XXXpS/TEPEL	32,39	919	0	952	0	993	0	894	0	895	0	972	26,07	954
697	L16	XXXpS/TEQF	98,98	696	103,335	804	249,605	732	327,38	668	3,62	849	177,32	694	2169,06	590
698	L17	XXXpS/TFQF	0	998	1344,47	126	608,79	280	1515,48	216	775,635	144	2066,32	84	8378,56	162
699	L19	XXXpS/TRER	101,175	689	129,495	766	231,535	759	301,225	679	118,09	680	181,45	687	863,28	754
700	L20	XXXpS/TLER	108,845	661	375,685	504	278,245	693	835,615	420	275,32	454	569,84	347	3748,82	425

Table S3

701	L21	XXXpS/TQER	45,6	880	103,835	803	85,76	918	0	918	0	917	46,155	874	346,54	868
702	L22	XXXpS/TRQE	34,705	907	1,315	926	68,34	938	0	930	0	929	106,49	779	343,55	869
703	L23	XXXpS/TLQE	109,14	659	387,59	491	182,185	810	765,235	456	97,915	711	687,29	294	4118,93	391
704	L24	XXXpS/TQQE	36,25	902	0	974	66,425	939	0	922	0	920	27,855	910	275,295	893
705	L25	XXXpS/TGGE	26,755	940	0	942	14,175	979	0	866	0	869	24,57	918	31,235	950
706	L26	EEQpS/TXXX	7,3	992	0	996	55,48	952	0	988	0	987	45,075	876	33,785	947
707	L27	RQEpS/TXXX	28,95	930	145,705	747	203,945	785	92,59	797	59,455	772	181,875	686	868,195	752
708	L28	XXXpS/TVRP	151,19	551	860,285	223	447,205	476	985,87	368	0	931	627,835	324	5348,43	305
709	L29	EFKpS/TXXX	210,34	416	732,455	271	445,43	479	1048,78	344	397,605	334	465,725	414	4957,01	330
710	L30	RKFpS/TXXX	79,05	756	890,92	213	428,255	506	1363,25	255	533,46	242	298,005	544	5185,58	314
711	L31	XXXpS/TVAL	791,135	61	2986,48	32	1049,23	81	2902,76	33	1497,29	35	4130,23	18	14402,4	34
712	L32	EQLpS/TXXX	50,2	861	25,9	896	123,185	880	0	970	0	968	3,815	953	312,41	883
713	L33	RLQpS/TXXX	716,795	72	1463,54	117	858,015	143	1062,41	338	694,605	169	1871,37	94	6250,34	251
714	L34	XXXpS/TKRF	184,14	477	556,965	352	587,15	302	257,87	702	186,65	569	271,82	570	851,75	757
715	L35	EGGpS/TXXX	70,99	788	49,355	863	139,3	862	0	961	0	963	78,61	817	398,74	855
716	L36	RRLpS/TXXX	872,355	51	2220,52	61	1143,88	58	2836,56	36	803,51	133	3155,2	37	14186,4	38
717	L37	RGGpS/TXXX	275	309	998,845	180	434,685	494	2078,72	112	957,51	92	653,58	311	5397,32	302
718	L38	XXXpS/TGGF	123	622	168,23	720	162,495	835	280,645	691	0	870	222,14	628	1280,01	688
719	L39	EEGpS/TXXX	75,415	774	0	987	71,82	936	0	957	0	961	23,86	922	42,095	943
720	L40	RGEpS/TXXX	69,665	795	471,365	417	320,965	643	585,905	538	254,6	480	333,83	510	4971,31	329
721	L41	XXXpS/TVFR	113,865	645	906,385	208	367,51	588	813,215	432	323,765	401	644,245	317	4069,69	398
722	L42	ELRpS/TXXX	141,61	567	834,425	228	458,725	457	1213,26	291	371,195	353	420,13	446	4101,58	394
723	L43	XXXpS/TVGE	79,355	753	384,935	494	303,7	665	658,745	497	182,725	578	557,75	355	4059,12	400
724	L44	EQQpS/TXXX	63,135	818	55,385	849	149,24	851	0	994	0	992	84,26	810	483,215	833
725	L45	RQQpS/TXXX	111,67	649	638,785	311	375,9	573	754,57	462	361,1	361	377,31	476	3547,36	446
726	L46	XXXpS/TKRP	65,21	812	395,56	486	619,13	261	121,03	781	258,245	471	166,6	707	624,54	799
727	L47	EGKpS/TXXX	65,1	814	275,575	602	473,535	438	635,38	509	346,88	376	146,085	738	2297,4	576
728	L48	RKGpS/TXXX	183,02	480	487,375	401	682,845	221	762,3	457	176,005	594	247,59	598	2761,35	519
729	L49	FVKpS/TXXX	220,285	389	950,21	192	640,025	244	1643,6	184	660,04	181	853,015	246	6503,82	241
730	L50	LVKpS/TXXX	266,35	317	1464,89	116	709,86	202	2182,88	93	944,675	96	734,43	280	10696,7	94
731	L51	XXXpS/TKGP	69,84	793	155,62	736	333,22	627	82,66	801	49,135	786	62,565	848	337,83	874
732	L52	LRLpS/TXXX	80,595	748	700,09	283	377,16	571	593,865	529	341,635	381	313,995	520	3179,85	476
733	L53	PRLpS/TXXX	106,915	669	752,03	263	387,55	555	975,61	373	426,02	312	425,27	441	4635,89	356
734	L54	PVKpS/TXXX	215,48	399	1310,08	131	692,045	214	2199,49	89	782,56	140	1216,12	173	7623,41	188
735	L55	LLGpS/TXXX	69,135	799	378,24	502	191,035	798	228,985	713	242,46	497	196,34	658	1767,52	631
736	L56	PLGpS/TXXX	65,145	813	129,4	767	181,095	813	311,32	675	87,875	725	79,04	815	1198,08	697
737	L58	LARpS/TXXX	456,965	141	2728,77	39	994,065	95	2394,61	73	1216,47	55	1690,27	110	10220,6	104

Table S3

738	L59	PARpS/TXXX	392,85	181	2055,98	69	914,385	116	2147,45	102	798,045	136	2090,15	80	8179,41	166
739	L60	PKRpS/TXXX	101,675	688	682,425	290	570,75	320	1687,67	173	652,4	182	399,985	459	3421,24	456
740	L62	FKRpS/TXXX	139,3	572	778,4	250	701,845	209	975,33	374	159,28	617	549,55	364	2108,15	600
741	L63	LKRpS/TXXX	108,29	663	577,18	341	511,075	387	813,04	433	540,105	239	433,5	436	2014,22	609
742	L64	XXXpS/TKVR	105,155	672	447,4	434	634,63	249	814,28	431	318,315	410	221,155	630	1357,36	674
743	L65	LRQpS/TXXX	198,36	440	1556,84	106	694,925	212	1868,09	142	692,88	171	1447,07	143	7837,88	174
744	L66	PRQpS/TXXX	124,025	619	1173,02	144	633,01	252	1459,38	230	411,66	324	1323,02	156	7010,54	220
745	L67	LLKpS/TXXX	183,41	479	1268,24	134	502,3	398	776,225	450	789,36	139	942,91	229	7286,34	204
746	L68	PLKpS/TXXX	222,005	388	1163,17	146	686,575	218	2319,99	80	943,285	97	847,295	248	7118,58	213
747	L70	LALpS/TXXX	130,435	602	875,68	218	471,07	441	1724,53	165	825,78	123	43,92	879	6420,52	248
748	L71	PALpS/TXXX	186,545	467	703,9	279	633,905	251	2139,35	105	1024,97	78	1008,45	217	7799,86	180
749	M1	XXXpS/TRKR	193,875	454	573,56	344	765,08	172	599,865	525	346,28	378	440,605	431	3918,07	415
750	M2	XXXpS/TLKR	168,805	513	611,765	323	580,715	306	1561,15	207	398,775	331	598,275	338	5848,57	276
751	M3	XXXpS/TQKR	97,665	697	320,485	549	451,94	466	859,09	413	379,255	345	233,765	616	2401,43	558
752	M4	XXXpS/TFPE	327	239	939,73	196	565,06	328	1387,52	248	592,945	211	1102,71	195	10422	101
753	M5	XXXpS/TPPE	16,005	969	0	960	17,115	976	0	907	0	905	5,55	950	0	975
754	M6	XXXpS/TAPE	900,665	50	2111,43	63	891,31	127	2389,34	75	1302,07	49	2525,15	62	16345,5	12
755	M7	XXXpS/TFVP	53,505	848	297,245	574	268,15	708	755,505	461	249,88	488	404,125	456	3842,16	419
756	M8	XXXpS/TPVP	34,555	908	0	966	104,865	902	0	915	0	912	27,575	911	0	981
757	M9	XXXpS/TAVP	172,41	504	426,63	453	469,965	442	1283,42	274	565,855	226	600,67	337	8185,44	165
758	M10	XXXpS/TLLL	70,43	789	397,205	483	102,04	907	148,395	759	188,345	567	537,425	370	5704,92	285
759	M11	XXXpS/TQLL	64,935	815	313,005	554	172,31	822	0	921	82,02	736	286,24	560	1801,65	626
760	M12	XXXpS/TGLL	67,315	805	299,56	573	126,32	875	0	869	0	874	344,81	502	2207,95	582
761	M13	XXXpS/TRKL	99,405	695	223,515	651	442,735	482	0	929	138,77	646	277,555	567	1569,08	649
762	M14	XXXpS/TLKL	135,29	583	476,59	411	472,45	439	1056,16	339	459,88	288	527,475	376	6468,06	245
763	M15	XXXpS/TQKL	88,52	721	168,905	718	447,845	474	452,085	600	121,665	670	227,28	624	2598,45	539
764	M16	XXXpS/TFPF	729,235	68	3206,09	28	1345,45	38	2592,15	53	1543,13	32	3417,94	30	13446,2	49
765	M17	XXXpS/TPPF	30,19	924	0	961	118,77	888	0	908	0	906	28,65	909	340,575	872
766	M18	XXXpS/TAPF	2100	4	5560,03	1	2781,97	2	3928,42	3	3060,44	1	6551,7	4	20748,3	1
767	M19	XXXpS/TFKR	100,21	694	615,115	321	496,85	413	576,62	543	222,33	523	705,26	286	2750,91	521
768	M20	XXXpS/TPKR	73,68	783	205,755	672	375,6	574	219,92	719	121,705	669	265,91	582	718,19	788
769	M21	XXXpS/TAKR	90,8	714	469,13	419	455,11	459	827,77	423	325,685	398	315,965	517	4055,52	401
770	M22	XXXpS/TLPE	367,07	205	1181,02	142	609,11	279	1627,03	187	676,455	178	1666,49	111	12641,1	56
771	M23	XXXpS/TQPE	76,78	761	140,26	754	228,655	762	445,6	604	0	919	247,12	600	2555,41	546
772	M24	XXXpS/TGPE	54,67	839	26,48	895	137,765	863	192,16	733	0	875	99,295	789	1533,53	652
773	M25	EEEpS/TXXX	10,415	984	7,925	921	7,89	984	0	934	0	935	15,19	929	0	982
774	M26	REEpS/TXXX	26,785	938	32,635	884	115,575	891	0	938	0	939	42,69	888	273,01	895

Table S3

775	M27	FEEpS/TXXX	6,945	993	0	980	13,1	981	0	935	0	936	0	982	0	983
776	M28	EFPpS/TXXX	84,245	734	53,58	851	72,495	934	0	978	0	975	120,515	766	909,005	746
777	M29	RPFpS/TXXX	1676,71	11	3544,91	19	1735,7	11	3086,94	24	1659,37	24	5046,04	9	14269,8	35
778	M30	FFPpS/TXXX	58,745	828	293,475	577	181,765	811	168,59	746	0	976	204,345	649	2418,14	557
779	M31	EPVpS/TXXX	82,36	743	467,45	421	247,215	735	655,93	500	186,66	568	463,255	417	6260,58	250
780	M32	RVPpS/TXXX	141,07	568	276,25	601	557,01	334	1056,07	340	447,865	295	229,175	621	1262,06	690
781	M33	FPVpS/TXXX	137,48	579	885,44	214	443,115	481	1083,16	330	464,39	285	1238,18	170	8469,57	159
782	M34	EGFpS/TXXX	40,37	887	106,685	797	149,435	850	62,18	815	104,56	702	300,805	540	2185,17	585
783	M35	RFpS/TXXX	451,65	144	1329	130	939,315	112	2163,7	98	730,315	160	1626,85	115	10697,1	93
784	M36	FGFpS/TXXX	91,45	712	542,18	363	256,195	724	777,58	448	199,59	557	862,91	244	4234,64	382
785	M37	EEFpS/TXXX	0	999	0	986	80,88	926	0	954	0	955	0	987	51,61	940
786	M38	RFEpS/TXXX	118,29	634	819,085	232	471,195	440	815,51	430	306,425	426	512,51	383	7380,89	200
787	M39	FEFpS/TXXX	0	1000	172,345	710	72,3	935	0	955	20,805	826	182,185	685	1153,75	704
788	M40	EFAPs/TXXX	141,615	566	695,66	284	350,5	612	539,07	559	186,135	571	449,64	424	5801,42	279
789	M41	RAFpS/TXXX	1453,27	17	3343,93	26	1626,08	15	3234,72	18	1831,09	20	5435,7	8	17486,2	7
790	M42	FFAPs/TXXX	164,51	523	1022,93	175	467,93	444	1256,79	278	435,52	303	1511,32	128	7004,73	221
791	M43	EQEpS/TXXX	5,835	995	0	984	34,165	963	0	951	0	949	0	984	0	988
792	M44	REQpS/TXXX	54,5	841	154,45	737	266,45	712	0	991	0	990	124,945	760	1440,58	663
793	M45	FQEpS/TXXX	27,26	936	16,025	911	94,405	911	0	952	0	950	64,46	845	186,645	913
794	M46	EGPpS/TXXX	24,875	949	15,63	912	95,045	910	0	979	0	977	3738,72	22	114,085	929
795	M47	RPGpS/TXXX	398,225	176	1080,09	162	610,86	275	1884,21	137	803,935	130	1266,64	165	9846,16	115
796	M48	FGPpS/TXXX	33,225	915	176,395	704	186,97	802	182,785	738	190,625	566	70,03	830	510,3	826
797	M49	LVPpS/TXXX	26,695	941	172,155	711	151,645	846	85,155	799	121,755	668	127,195	759	781,54	773
798	M50	XXXpS/TKAP	69,24	798	156,695	735	610,43	276	0	876	0	882	0	967	840,205	760
799	M52	PFVpS/TXXX	34,23	911	46,3	869	173,91	820	367,32	643	0	998	7,405	944	178,185	914
800	M53	PVPpS/TXXX	26,335	943	139,095	758	174,92	819	132,115	774	44,75	789	58,62	855	391,345	856
801	M55	PLFpS/TXXX	76,14	766	714,32	275	330,46	631	527,59	563	218,485	527	494,075	395	4684,23	352
802	M58	PQApS/TXXX	47,415	874	179,565	700	273,71	697	24,085	834	0	934	23,865	921	1171,66	701
803	M61	LVApS/TXXX	102,83	684	800,72	241	421,335	510	1493,2	224	438,725	301	870,375	242	7718,79	186
804	M62	XXXpS/TKGR	79,03	757	281,465	594	658,815	231	125,745	777	168,045	605	225,175	626	1280,83	687
805	M64	PREpS/TXXX	38,345	896	274,06	605	210,19	778	311,86	673	0	952	143,345	741	1924,75	620
806	M65	PVApS/TXXX	102,23	686	765,115	256	414,82	520	1008,28	361	697,585	168	755,645	276	7742,22	184
807	M67	PLPpS/TXXX	44,095	882	173,015	708	154,96	842	185,195	736	240,74	502	72,86	825	1003,17	733
808	M70	PQVpS/TXXX	39,395	891	167,025	722	232,775	754	259,365	699	356,73	364	105,855	782	1717,27	636
809	N1	XXXpS/TERL	90,345	716	436,78	445	365,28	592	488,155	586	396,48	335	348,355	500	5626,16	289
810	N2	XXXpS/TLVF	93,24	708	479,355	406	405,875	530	731,88	469	428,755	310	641,03	318	5857,3	275
811	N3	XXXpS/TQVF	76,805	760	170,515	714	257,88	722	454,385	599	290,325	439	159,025	717	2593,09	541

Table S3

812	N4	XXXpS/TEAF	83,08	738	192,16	689	212,565	774	348,455	655	113,485	690	246,31	601	4789,55	345
813	N5	XXXpS/TPLR	53,625	847	100,36	808	254,275	726	123,51	779	183,555	576	96,33	796	323,525	879
814	N6	XXXpS/TALR	119,085	630	526,715	373	454,895	460	893,83	396	496,915	259	551,345	361	5705,26	284
815	N7	XXXpS/TRRR	253,665	337	811,735	236	635,135	248	548,67	553	523,965	246	367,24	487	2687,79	527
816	N8	XXXpS/TPVE	21,235	956	0	965	37,15	959	0	914	0	911	7,99	943	0	980
817	N9	XXXpS/TAVE	90,11	717	139,645	757	218,265	769	278,925	692	137,89	648	311,27	523	4774,25	347
818	N10	XXXpS/TRAE	34,36	910	47,515	868	154,395	843	0	924	0	923	98,9	790	628,645	797
819	N11	XXXpS/TQFP	48,98	868	174,71	705	231,38	760	300,065	680	108,6	696	168,61	704	2131,55	596
820	N12	XXXpS/TGFP	70,32	791	213,92	662	231,55	758	597,375	527	133,38	654	173,035	698	2436,23	555
821	N13	XXXpS/TEFE	6,725	994	0	934	60,805	945	0	854	0	856	11,035	939	316,025	882
822	N14	XXXpS/TLVP	74,76	777	287,595	583	232,015	757	743,525	465	321,2	404	366,815	489	4124,08	390
823	N15	XXXpS/TQVP	54,875	838	134,085	762	224,3	764	311,945	672	7,605	841	133,015	751	2967,98	502
824	N16	XXXpS/TEAP	49,48	864	106,875	795	227,675	763	221,4	718	61,53	767	147,57	736	2332,45	567
825	N17	XXXpS/TPLL	29,53	928	115,76	789	26,53	971	17,055	841	51,835	783	124,88	761	504,825	827
826	N18	XXXpS/TALL	145,58	558	956,935	189	376,06	572	975,24	375	650,42	183	920,99	234	7606,05	191
827	N19	XXXpS/TRRL	95,115	701	378,655	500	384,325	560	456,56	598	215,155	535	393,77	463	927,525	744
828	N20	XXXpS/TPVF	38,73	893	32,87	883	117,955	889	14,14	844	29,975	810	29,24	908	292,285	889
829	N21	XXXpS/TAVF	241,065	359	1153,05	148	521,13	377	1698,2	169	877,705	111	1126,21	192	9785,05	119
830	N22	XXXpS/TRAF	74,75	778	530,675	370	367,705	586	872,135	405	282,35	446	388,35	471	3087,52	491
831	N23	XXXpS/TQLR	55,87	836	303,825	566	295,545	671	403,08	624	139,77	644	153,85	727	1268,25	689
832	N24	XXXpS/TGLR	84,41	732	415,145	465	420,29	513	569,665	545	244,715	492	192,205	667	1048,16	724
833	N25	XXXpS/TGVF	50,34	860	328,765	539	232,875	753	592,545	533	83,96	732	134,01	749	3885,9	416
834	N26	EKAps/TXXX	49,615	862	56,595	847	236,325	748	50,51	824	120,16	672	78	818	1139,92	707
835	N27	RAKps/TXXX	1686,44	10	4595,44	5	2234,17	5	3949,43	2	2917,91	2	6175,01	5	15236,3	23
836	N28	XXXpS/TVLR	96,375	699	916,425	206	404,475	533	931,335	387	489	271	463,935	416	7538,6	196
837	N29	REFps/TXXX	218	393	247,18	630	266,195	713	629,67	512	169,35	602	187,88	675	2287,35	577
838	N30	FFEps/TXXX	144,23	561	218,655	659	0	998	192,72	732	274,36	458	121,42	764	2047,63	606
839	N31	XXXpS/TVVE	84,915	730	144,83	749	185,465	803	578,97	541	56,045	776	232,67	617	4051,69	403
840	N32	RPPps/TXXX	53,67	845	309,38	557	252,15	729	774,02	452	327,665	397	143,375	740	2147,34	594
841	N33	FPPps/TXXX	71,915	785	49,77	861	117,125	890	15,795	843	0	983	97,5	793	663,23	794
842	N34	XXXpS/TKFP	48,355	871	282,33	591	215,65	771	234,78	710	208,97	545	112,09	774	741,385	782
843	N35	RVApS/TXXX	817,44	58	2077,3	66	1273,35	43	2740,72	42	1019,92	79	3022,3	45	14781,6	29
844	N36	FAVps/TXXX	118,84	631	1132,32	153	355,97	606	1169,69	305	408,68	326	1131,96	190	6233,53	253
845	N37	XXXpS/TGVP	74,625	780	125,23	776	278,785	691	0	874	0	880	128,61	756	1037,63	726
846	N38	EKVps/TXXX	65,61	811	144,03	750	199,23	793	156,65	756	87,695	726	148,83	732	899,605	748
847	N39	RVKps/TXXX	915,095	48	2870,51	33	1121,82	63	2189,81	92	1331,13	46	1942,15	90	11626,4	77
848	N40	XXXpS/TVLL	190,68	459	768,985	255	247,415	734	1510,11	220	739,46	156	943,4	228	7547,64	194

Table S3

849	N41	RFFpS/TXXX	719,105	69	3465,14	21	1051,57	79	2611,97	52	1490,13	37	3066,25	42	11983,2	67
850	N42	FFFpS/TXXX	89,065	720	600,195	328	268,76	707	761,39	458	228,945	518	550,365	362	4044,89	405
851	N43	XXXpS/TVVF	275,035	308	950,45	191	387,17	556	1645,88	183	803,87	131	1344,13	153	7185,36	210
852	N44	RAPpS/TXXX	223,3	384	500,295	385	743,57	186	350,865	652	177,76	588	357,57	495	2218,96	580
853	N45	FPApS/TXXX	280,525	297	1103,24	159	675,08	223	1244,58	282	643,08	186	1642,06	113	9373,05	125
854	N46	XXXpS/TKLR	76,26	764	494,6	392	437,635	489	294,055	684	254,915	477	305,91	531	1109,24	714
855	N47	REGpS/TXXX	64,06	816	220,035	655	259,035	719	99,1	794	29,715	811	103,42	785	609,405	805
856	N48	FGEpS/TXXX	105,585	671	13,79	916	240,44	743	1279,58	275	12,085	833	12,79	935	175,51	915
857	N49	FKApS/TXXX	53,84	843	489,035	399	353,59	609	715,775	477	299,095	435	382,805	473	3520,96	449
858	N50	XXXpS/TKAE	25,325	948	30,925	887	261,895	717	0	875	0	881	0	966	333,505	876
859	N52	LFEpS/TXXX	35,7	903	33,2	882	132,08	867	0	939	0	940	68,77	833	1180,75	700
860	N53	PVEpS/TXXX	31,24	921	35,9	878	120,9	885	192,835	731	16,11	831	0	986	379,275	862
861	N55	LPPpS/TXXX	28,365	934	103,175	805	105,365	901	0	984	0	984	17,575	927	387,475	858
862	N58	LAVpS/TXXX	113,28	647	1062,45	165	358,855	600	1041,12	349	445,855	298	1047,35	205	8530,4	153
863	N61	FKVpS/TXXX	47,755	873	496,055	389	263,9	715	315,535	670	140,895	643	216,32	637	2062,98	604
864	N62	XXXpS/TKAF	74,855	776	449,1	432	356,46	605	736,29	468	319,945	407	247,3	599	3393,08	457
865	N64	LFFpS/TXXX	80,03	749	914,205	207	272,3	701	864,1	411	350,135	374	652,525	312	6630,16	238
866	N65	PVFpS/TXXX	56,05	833	477,445	409	245,665	738	588,365	536	522,72	247	363,905	492	4341,59	376
867	N67	LPAPs/TXXX	258,665	332	1269,74	133	692,965	213	1724,1	166	948,615	95	1240,97	169	11938,5	68
868	N70	LGEpS/TXXX	34,145	913	30,695	888	108,725	896	0	941	0	943	5,715	949	736,32	784
869	O1	XXXpS/TEEP	32,92	916	0	933	94,16	912	0	852	0	855	25,055	917	834,92	761
870	O2	XXXpS/TFEP	49,41	866	204,305	675	140,99	860	342,41	657	275,135	455	228,735	622	3162,58	479
871	O3	XXXpS/TQGL	42,255	885	62	843	121,21	884	74,03	805	237,905	507	88,475	803	1615,7	644
872	O4	XXXpS/TEQL	72,335	784	71,685	830	134,505	864	0	858	158,995	618	117,255	772	3878,13	417
873	O5	XXXpS/TFQL	81,315	746	781,54	248	289,89	677	948,61	381	611,005	200	539,9	369	7036,19	219
874	O6	XXXpS/TAFF	335,565	233	1791,57	87	598,845	288	1669,55	176	1381,51	40	1595,13	119	10561,9	97
875	O7	XXXpS/TREF	30,295	923	34,955	879	124,855	878	0	926	28,445	813	79,805	814	963,93	739
876	O8	XXXpS/TLEF	58,275	829	339,215	534	125,43	876	423,84	613	253,715	482	369,605	483	4074,52	397
877	O9	XXXpS/TAGR	76,725	762	540,43	364	337,38	623	741,64	466	567,085	224	292,275	553	2755,51	520
878	O10	XXXpS/TRQR	56,33	832	342,81	531	316,85	647	199,35	728	267,005	465	157,17	721	1181,29	699
879	O11	XXXpS/TLQR	71,54	787	579,725	339	82,28	924	646,05	504	81,315	738	644,575	316	4482,96	367
880	O12	XXXpS/TGFE	20,445	959	5,05	924	57,285	949	0	865	0	868	0	964	27,43	953
881	O13	XXXpS/TERR	84,52	731	301,18	571	324,235	639	447,89	603	351,585	371	371,865	481	3367,24	461
882	O14	XXXpS/TFRR	164,585	521	763,795	257	559,82	331	609,855	522	634,675	190	813,705	256	4769,89	348
883	O15	XXXpS/TQVE	26,825	937	0	975	83,76	920	75,01	803	0	922	0	978	607,825	806
884	O16	XXXpS/TEAE	54,42	842	0	930	0	988	0	848	0	851	6,955	947	229,855	906
885	O17	XXXpS/FAE	75,55	772	453,675	429	157,79	839	511,84	569	208,08	547	349,595	499	4541,45	361

Table S3

886	O18	XXXpS/TAFP	155,855	540	946,6	193	452,03	465	1432,41	235	1148,05	63	629,13	323	6494,73	242
887	O19	XXXpS/TREP	30,09	926	3,265	925	128,695	872	0	927	0	925	25,8	915	250,755	902
888	O20	XXXpS/TLEP	8,9	987	148,51	745	1,055	986	20,565	837	16,75	829	68,415	835	414,525	850
889	O21	XXXpS/TAGL	82,38	740	620,265	318	271,075	703	1246,85	281	744,4	152	415,895	448	4816,8	341
890	O22	XXXpS/TRQL	48,04	872	163,755	727	102,76	906	272,945	695	97,225	712	82,18	812	783,245	772
891	O23	XXXpS/TLQL	123,885	620	971,875	188	410,975	525	1731,18	162	867,935	115	783,515	266	5786,84	280
892	O24	XXXpS/TGFF	55,99	834	367,125	513	236,515	747	341,85	658	148,555	633	134,15	748	1989,88	613
893	O25	XXXpS/TGGL	46,12	878	232,96	640	233,95	750	243,76	706	171,5	600	77,535	819	1956,69	616
894	O26	EFVpS/TXXX	19,98	962	0	999	22,69	973	0	997	0	995	10,665	940	188,61	911
895	O27	RFKpS/TXXX	860,33	54	3700,88	14	1367,94	33	3106,03	23	2023,16	11	2656,68	60	12926,2	53
896	O28	XXXpS/TVFF	201,36	431	1572,27	105	265,215	714	168,335	747	1000,58	84	1257,95	167	8435,28	160
897	O29	ELFpS/TXXX	31,025	922	240,685	635	100,19	908	337,715	663	0	958	108,175	776	1951,02	617
898	O30	FRApS/TXXX	214,82	403	2480,75	46	612,77	271	1825,76	147	953,17	94	1292,52	162	11740,3	75
899	O31	XXXpS/TVGR	75,555	771	980,71	183	391,625	548	1436,44	233	691,09	172	458,275	418	6819,97	229
900	O32	EQApS/TXXX	20,455	958	0	978	77,425	930	62,88	813	0	933	8,82	942	564,905	817
901	O33	FPEpS/TXXX	49,17	867	52,485	854	122,32	883	103,75	792	0	948	97,94	792	2013,64	610
902	O34	XXXpS/TKFE	25,58	946	7,98	920	77,815	929	0	881	0	885	14,05	931	272,62	896
903	O35	EVEpS/TXXX	15,525	970	0	985	36,535	961	0	953	0	953	253,175	592	124,145	923
904	O36	FAPpS/TXXX	35,03	905	162,57	729	119,04	887	67,055	811	119,1	677	64,275	846	442,85	841
905	O37	XXXpS/TGVE	15,45	971	0	945	49,49	954	0	873	45,89	788	31,67	904	188,515	912
906	O38	EREpS/TXXX	37,47	900	91,09	821	77,855	928	2,415	847	4,215	848	61,905	850	1005,48	732
907	O39	RPKpS/TXXX	1189,3	27	3017,28	31	1864,9	9	3188,06	20	2022,22	12	3642,82	23	16174	15
908	O40	XXXpS/TVFP	67,78	802	461,09	425	190,105	800	535,07	561	316,09	411	351,34	498	4362,98	375
909	O41	ELPpS/TXXX	14,615	974	0	993	33,785	964	0	982	0	981	12,04	938	93,74	932
910	O42	FRVpS/TXXX	109,915	657	1054,95	167	344,935	615	750,525	463	329,16	394	551,975	360	5693,59	286
911	O43	XXXpS/TVGL	134,02	588	1266,5	135	613,71	270	1657,05	179	983,44	87	790,055	263	8170,02	167
912	O44	EQVpS/TXXX	26,65	942	0	1000	60,495	946	0	1000	0	999	26,885	912	363,84	864
913	O45	FPFpS/TXXX	156,215	538	755,645	262	429,02	505	1119,49	320	571,92	222	808,735	260	5074,58	320
914	O46	XXXpS/TKFF	116,235	638	711,21	277	184,5	807	133,195	773	62,575	762	280,29	564	759,77	776
915	O47	EVFpS/TXXX	51,84	853	249,13	628	168,545	831	210,525	722	79,27	742	85,42	807	2678,29	529
916	O48	FAApS/TXXX	180,045	487	1414,32	123	596,145	292	1602,63	194	1065,76	70	1478,39	134	11721,4	76
917	O49	FKFpS/TXXX	48,91	869	395,54	487	233,11	751	393,02	630	1838,78	19	147,855	735	2869,77	511
918	O50	LKFpS/TXXX	31,5	920	459,15	427	207,28	782	513,42	566	115,13	688	0	988	2446,34	552
919	O52	LRApS/TXXX	160,335	530	1489,78	111	449,93	469	1865,72	143	743,77	154	750,69	277	10304,5	102
920	O53	PRApS/TXXX	152,85	545	1486,16	112	515,79	380	1207,09	295	589,64	213	1173,25	179	8809,09	148
921	O55	LPEpS/TXXX	17,325	965	16,465	909	83,3	923	0	949	20,205	827	36,425	899	0	987
922	O56	PPEpS/TXXX	32,41	918	612,49	322	107,435	897	0	950	31,235	809	156,415	723	2368,67	563

Table S3

923	O58	LAPpS/TXXX	20,18	961	158,48	730	57,41	948	10,005	846	0	970	23,915	920	0	992
924	O59	PAPpS/TXXX	27,825	935	106,86	796	119,655	886	0	972	94,72	715	81,91	813	786,035	771
925	O61	FKPpS/TXXX	38,69	894	286,815	585	152,075	845	0	981	0	979	76,525	822	536,655	822
926	O62	LKPpS/TXXX	29,055	929	210,73	665	140,695	861	68,97	808	105,035	701	72,58	826	491,5	832
927	O64	LRVpS/TXXX	67,26	807	1063,49	164	258,925	720	1014,93	360	636,425	189	524,965	377	7271,66	205
928	O65	PRVpS/TXXX	13,425	975	204,45	674	61,215	943	34,91	831	85,875	729	83,675	811	1001,88	735
929	O67	LPFpS/TXXX	39,42	890	225,405	648	90,895	915	52,28	823	0	959	0	989	926,835	745
930	O68	PPFpS/TXXX	314,325	257	2306,93	56	712,585	198	2165,96	97	1362,96	42	1861,87	95	7058,1	217
931	O70	LAAPs/TXXX	146,38	555	1695,26	99	528,1	367	2190,34	91	1349,4	44	1504,43	130	11236,9	84
932	O71	PAAPs/TXXX	107,31	667	789,305	243	487,99	423	1342,89	259	909,335	101	667,2	302	9155,03	136
933	P1	XXXpS/TEEE	1,1	997	0	931	13,775	980	0	849	0	852	6,285	948	0	960
934	P2	XXXpS/TFEE	10,765	981	44,21	873	0,105	987	0	860	0	863	36,64	897	863,305	753
935	P3	XXXpS/TPEE	7,435	991	0	950	0	992	0	892	0	893	0	970	0	970
936	P4	XXXpS/TEPP	774,29	63	2391,02	52	1060,79	78	1185,33	299	1552,01	29	1429,63	148	10959,5	90
937	P5	XXXpS/TFPP	560,05	109	2558,1	44	981,81	97	2235,9	87	2411,57	5	1580,96	121	10182,5	106
938	P6	XXXpS/TPPP	8,685	989	15,045	914	89,465	916	0	910	0	908	180,325	690	0	976
939	P7	XXXpS/TEKL	51,67	854	305,41	563	160,075	836	242,76	707	495,495	263	182,335	684	2809,27	516
940	P8	XXXpS/TFKL	49,455	865	679,945	293	143,965	854	936,87	385	881,62	109	306,43	530	2157,4	591
941	P9	XXXpS/TPKL	24,64	950	143,925	751	129,095	871	0	903	500,01	258	57,395	858	47,85	942
942	P10	XXXpS/TRPF	51,315	856	474,595	413	258,74	721	492,74	583	378,075	347	378,86	475	2892,5	509
943	P11	XXXpS/TLPF	745,395	65	3612,85	16	956,745	106	2745,48	41	2327,81	7	3316,1	33	12318,3	60
944	P12	XXXpS/TQPF	133,645	590	717,46	274	298,715	668	1107,53	323	34,18	802	489,165	397	5004,61	323
945	P13	XXXpS/TEEF	12,59	978	0	932	5,245	985	0	850	0	853	0	958	0	961
946	P14	XXXpS/TFEF	55,355	837	375,465	505	149,455	849	484,655	587	330,29	389	365,97	490	3566,35	444
947	P15	XXXpS/TPEF	8,77	988	0	951	8,62	983	0	893	0	894	0	971	4,55	958
948	P16	XXXpS/TEQR	63,34	817	158,015	732	122,71	881	19,805	838	104,16	703	85,195	808	2027,61	608
949	P17	XXXpS/TFQR	52,02	852	549,56	357	150,045	848	488,83	585	484,95	272	443,44	428	3392,17	458
950	P18	XXXpS/TPQR	20,275	960	87,605	828	84,295	919	0	912	85,13	731	41,825	890	224,135	907
951	P19	XXXpS/TREE	10,33	985	22,675	901	0	995	0	925	0	924	0	979	41,63	944
952	P20	XXXpS/TLEE	16,085	968	19,165	907	0	991	147,4	760	75,495	746	52,19	865	482,62	834
953	P21	XXXpS/TQEE	10,205	986	0	968	8,82	982	55,09	820	0	914	0	977	25,805	955
954	P22	XXXpS/TRPP	32,565	917	201,41	678	158,36	837	341,76	659	226,96	520	61,35	852	803,475	767
955	P23	XXXpS/TLPP	396,51	178	1812,89	86	802,545	156	1764,12	157	1296,05	50	816,005	255	9023,25	142
956	P24	XXXpS/TQPP	193,955	453	940,205	195	638,17	247	1352,68	256	961,055	91	541,26	368	6884,25	227
957	P25	XXXpS/TGAP	17,925	964	91,03	822	128,345	873	162,825	750	165,44	607	51,655	867	1285,4	686
958	P26	EEPpS/TXXX	19,43	963	0	990	0	1000	0	973	0	971	0	995	0	993
959	P27	RPEpS/TXXX	431,08	155	1148,85	150	862,845	140	1400,65	243	518,535	248	1032,14	209	7622,17	189

Table S3

960	P28	XXXpS/TVRL	53,395	849	1021,99	176	351,84	611	1045,46	346	806,01	127	441,765	430	5082,95	318
961	P29	EFVpS/TXXX	24,405	951	96,91	813	76,155	931	208,585	724	177,185	591	31,305	905	1126,42	710
962	P30	RVFpS/TXXX	715,105	73	1927,56	79	1108,09	68	2537,41	62	919,92	100	2552,65	61	12818,8	55
963	P31	XXXpS/TVAF	698,35	77	4188,76	7	1431,96	23	3272,69	14	2151,39	10	3303,51	34	9327,74	128
964	P32	EQFpS/TXXX	10,565	983	10,125	918	30,31	967	72,875	807	0	960	35,065	900	350,66	867
965	P33	RFQpS/TXXX	609,085	96	2243,89	60	1019	92	2252,81	85	1063,68	72	2678,85	58	11920,2	69
966	P34	XXXpS/TKRR	59,315	827	655,67	302	369,88	582	549,32	551	458,59	289	505,675	388	1089,51	719
967	P35	EGApS/TXXX	38,595	895	37,53	876	63,28	941	123,12	780	40,805	796	76,665	820	842,81	759
968	P36	RAGpS/TXXX	621,64	91	1046,57	168	859,19	142	1893,19	134	968,105	88	1464,85	137	8917,45	145
969	P37	XXXpS/TGGR	43,46	883	208,73	669	114,49	893	95,215	795	169,66	601	172,55	700	1089,77	718
970	P38	EEApS/TXXX	7,72	990	0	977	0	997	120,55	783	0	932	0	980	3,695	959
971	P39	RAEpS/TXXX	612,065	95	993,185	181	1022,82	89	1806,25	152	660,505	180	2110,95	78	8928,72	144
972	P40	XXXpS/TVFE	39,67	889	115,8	788	35,7	962	233,205	711	50,115	784	154,96	725	2839,55	512
973	P41	ELEpS/TXXX	14,885	973	0	983	0	999	0	945	0	945	43,295	885	234,5	904
974	P42	RELpS/TXXX	109,05	660	404,18	473	463,585	448	471,84	590	301,635	432	409,85	452	3760,47	423
975	P43	XXXpS/TVAP	62,24	819	685,29	289	169,945	827	955,565	379	615,255	198	534,93	371	4875,62	336
976	P44	EQPpS/TXXX	23,11	953	0	994	24,01	972	0	985	0	985	0	998	6,505	957
977	P45	RPQpS/TXXX	1234,6	25	2682,16	40	1633,51	13	2703,97	45	1468,87	38	3118,56	40	12909,8	54
978	P46	XXXpS/TKRL	60,135	822	432,155	450	203,74	786	149,395	758	287,495	441	193,26	664	612,545	804
979	P47	EGVpS/TXXX	14,905	972	164,09	725	29,06	969	62,23	814	10,37	839	138,445	744	979,99	737
980	P48	RVGpS/TXXX	449,39	148	937,25	200	863,11	139	1671,2	175	689,685	174	891,345	239	5543,1	292
981	P49	FVVpS/TXXX	55,92	835	627,07	314	146,325	852	369,925	641	119,865	674	342,925	504	3344,53	463
982	P50	LVVpS/TXXX	34,785	906	575,865	343	63,02	942	381,145	639	174,4	598	171,685	702	3725,97	430
983	P51	XXXpS/TKGL	11,635	979	225,095	650	68,52	937	664,225	495	268,605	463	46,88	872	461,58	838
984	P52	LRFPpS/TXXX	82,375	742	895,725	210	128,04	874	994,475	364	425,695	313	337,46	508	4811,58	343
985	P53	PRFPpS/TXXX	79,31	754	1101,68	160	192,9	797	1279,28	276	479,645	277	575,29	346	5401,01	301
986	P54	PVVpS/TXXX	28,89	932	375,085	506	55,69	951	805,325	436	365,645	360	199,04	655	2603,18	538
987	P55	LLApS/TXXX	37,54	899	443,39	439	94,02	913	719,255	476	330,025	390	302,705	537	3343,77	464
988	P56	PLApS/TXXX	52,915	850	689,23	288	83,595	921	1071,25	334	583,45	215	363,34	493	5099,72	317
989	P58	LAEpS/TXXX	22,06	954	262,4	617	36,71	960	415,635	617	141,435	642	230,365	620	2300,17	574
990	P59	PAEpS/TXXX	28,9	931	128,75	768	72,91	933	181,54	740	118,035	681	106,48	780	2175,35	589
991	P61	FKEpS/TXXX	11,325	980	167,785	721	33,56	965	0	944	0	944	33,83	903	163,99	917
992	P62	LKEpS/TXXX	13,075	977	252,07	623	21,32	974	86,315	798	321,36	403	86,425	805	737,78	783
993	P63	XXXpS/TKVE	20,985	957	34,82	880	33,19	966	0	886	61,955	765	24,27	919	420,43	849
994	P64	LRPpS/TXXX	21,58	955	534,02	367	111,035	895	383,875	637	309,615	424	160,35	715	1660,56	640
995	P65	PRPpS/TXXX	26,17	944	475,36	412	103,015	904	639,625	508	593,145	210	195,5	660	1663,82	639
996	P66	PKEpS/TXXX	13,35	976	88,35	825	40,695	958	286,44	689	221,87	524	12,495	936	139,19	921

Table S3

997	P67	LLVpS/TXXX	2,41	996	471,785	416	61,015	944	498,21	579	407,405	328	228,345	623	2898,37	506
998	P68	PLVpS/TXXX	23,205	952	476,81	410	92,32	914	786,015	445	513,16	249	240,715	610	3499,39	452
999	P70	LAFpS/TXXX	46,91	876	938,935	198	232,885	752	1295,15	271	825,425	124	585,705	343	7419,61	199
1000	P71	PAFpS/TXXX	66,6	808	738,805	266	320,74	645	1166,37	307	1000,6	83	590,57	340	7754,89	183

Table S3: Binding potency of seven Cy3 labeled 14-3-3 isoforms against 1000-member library. Values indicate binding potency which are reflected by relative fluorescent (RF). **RF = Fluorescent intensity after Cy 3 Pin1 incubation - Background Fluorescent Intensity.**

Values in blue indicate the ranking of fluorescent intensity from No.1 (highest) to No. 1000 (lowest). A greater binding affinity of Cy3 labeled 14-3-3 isoforms against a particular peptide sequence will generated a higher rank, contributing to an overall preference towards such peptide sequence.

Table S4

NO.	Rank	A		B		C		D		E		F		G	
		Peptide	Cy3 Beta	Peptide	Cy3 Epsilon	Peptide	Cy3 Eta	Peptide	Cy3 Gamma	Peptide	Cy3 Sigma	Peptide	Cy3 Tau	Peptide	Cy3 Zeta
		Sequence		Sequence		Sequence		Sequence		Sequence		Sequence		Sequence	
N-Terminal Sublibrary															
1	1	RARpS/TXXX	2240,08	RAVpS/TXXX	5017,17	RAApS/TXXX	2260,75	RAKpS/TXXX	3949,43	RAKpS/TXXX	2917,91	RAKpS/TXXX	6175,01	RPVpS/TXXX	17579,8
2	2	RAApS/TXXX	1989,67	RAKpS/TXXX	4595,44	RAKpS/TXXX	2234,17	RAQpS/TXXX	3826,73	RAApS/TXXX	2382,66	RARpS/TXXX	5958,16	RAFpS/TXXX	17486,2
3	3	RAQpS/TXXX	1970,32	RAApS/TXXX	4395,29	RRApS/TXXX	2190,06	RAApS/TXXX	3755,2	RAVpS/TXXX	2317,37	RAApS/TXXX	5581,72	RAApS/TXXX	16992,9
4	4	RVRpS/TXXX	1751,7	RPApS/TXXX	3995,38	RPKpS/TXXX	1864,9	RARpS/TXXX	3723,8	RFKpS/TXXX	2023,16	RAFpS/TXXX	5435,7	RPApS/TXXX	16780
5	5	RAKpS/TXXX	1686,44	RAQpS/TXXX	3859,92	RAQpS/TXXX	1824,16	RAVpS/TXXX	3498,08	RPKpS/TXXX	2022,22	RPFpS/TXXX	5046,04	RRApS/TXXX	16553,6
6	6	RPFpS/TXXX	1676,71	RARpS/TXXX	3777,68	RPFpS/TXXX	1735,7	RPRpS/TXXX	3431,95	RRApS/TXXX	1989,21	RAVpS/TXXX	5008,23	PPApS/TXXX	16464,4
7	7	RALpS/TXXX	1540,77	RRApS/TXXX	3774,38	RPRpS/TXXX	1651,25	RRApS/TXXX	3413,79	RAQpS/TXXX	1975,7	RAQpS/TXXX	4856,67	RARpS/TXXX	16291,3
8	8	RVQpS/TXXX	1465,83	RFKpS/TXXX	3700,88	RPQpS/TXXX	1633,51	RALpS/TXXX	3321,41	FAKpS/TXXX	1974,29	RPApS/TXXX	4700,5	RPKpS/TXXX	16174
9	9	RAFpS/TXXX	1453,27	RRKpS/TXXX	3692,36	RPApS/TXXX	1627,92	RPLpS/TXXX	3259,51	RPApS/TXXX	1927,68	RRApS/TXXX	4376,3	RVRpS/TXXX	16042,5
10	10	RRRps/TXXX	1434,13	RALpS/TXXX	3562,93	PAKpS/TXXX	1626,08	PAKpS/TXXX	3254,36	RARpS/TXXX	1900,55	RALpS/TXXX	4160,81	RALpS/TXXX	15924,6
11	11	RPRpS/TXXX	1403,61	RFApS/TXXX	3552,58	RARpS/TXXX	1511,45	RAFpS/TXXX	3234,72	FKFpS/TXXX	1838,78	EGPpS/TXXX	3738,72	RAVpS/TXXX	15559,9
12	12	RRKpS/TXXX	1353,91	RPFpS/TXXX	3544,91	LAKpS/TXXX	1503,41	RVRpS/TXXX	3189,2	RAFpS/TXXX	1831,09	RPKpS/TXXX	3642,82	RPRpS/TXXX	15485,9
13	13	RRVpS/TXXX	1308,39	RRFpS/TXXX	3481,3	PAKpS/TXXX	1495,16	RPKpS/TXXX	3188,06	RPRpS/TXXX	1796,53	RRRps/TXXX	3636,39	RAKpS/TXXX	15236,3
14	14	RRQpS/TXXX	1296	RFFpS/TXXX	3465,14	RAVpS/TXXX	1464,08	RPVpS/TXXX	3162,95	RALpS/TXXX	1745,36	RRVpS/TXXX	3627,51	RRRps/TXXX	15074,4
15	15	PAKpS/TXXX	1284,9	RRVpS/TXXX	3450,92	RRVpS/TXXX	1461,39	RPApS/TXXX	3159,78	RPFpS/TXXX	1659,37	RRFpS/TXXX	3534,75	RVApS/TXXX	14781,6
16	16	RPQpS/TXXX	1234,6	RPVpS/TXXX	3431,94	RRFpS/TXXX	1450,26	RFKpS/TXXX	3106,03	RFApS/TXXX	1628,78	RPVpS/TXXX	3483,16	RALpS/TXXX	14586,8
17	17	RRApS/TXXX	1227,39	RFRpS/TXXX	3388,44	RALpS/TXXX	1431,29	RPFpS/TXXX	3086,94	RPVpS/TXXX	1625,23	PFRpS/TXXX	3353,6	RRKpS/TXXX	14486,6
18	18	RPKpS/TXXX	1189,3	RPRpS/TXXX	3371,3	RRKpS/TXXX	1427,5	PGKpS/TXXX	3026,48	RRKpS/TXXX	1571,27	RPRpS/TXXX	3349,26	RRVpS/TXXX	14458,2
19	19	RPApS/TXXX	1140,97	RAFpS/TXXX	3343,93	PFRpS/TXXX	1401,52	LGKpS/TXXX	2949,3	RGKpS/TXXX	1549,02	RRKpS/TXXX	3228,49	RPFpS/TXXX	14269,8
20	20	LPKpS/TXXX	1084,73	RVRpS/TXXX	3218,51	PFKpS/TXXX	1381,74	RRRps/TXXX	2922,93	PAKpS/TXXX	1541,3	RVRpS/TXXX	3187,5	RFApS/TXXX	14224,9
21	21	RPLpS/TXXX	1080,22	RFLpS/TXXX	3065,1	PPKpS/TXXX	1373,18	RRKpS/TXXX	2917,45	RVRpS/TXXX	1496,75	RRLpS/TXXX	3155,2	RRLpS/TXXX	14186,4
22	22	RFLpS/TXXX	1073,54	RPKpS/TXXX	3017,28	RFLpS/TXXX	1369,97	FAKpS/TXXX	2914,29	RFFpS/TXXX	1490,13	LRRpS/TXXX	3118,64	LRKpS/TXXX	13879,2
23	23	FARpS/TXXX	1040,7	RVKpS/TXXX	2870,51	RFKpS/TXXX	1367,94	LRRpS/TXXX	2838,56	RPQpS/TXXX	1468,87	RPQpS/TXXX	3118,56	RFLpS/TXXX	13866,4
24	24	FRRpS/TXXX	1026,18	FRRpS/TXXX	2869,19	FPKpS/TXXX	1366,31	RRLpS/TXXX	2836,56	RRFpS/TXXX	1369,2	RFFpS/TXXX	3066,25	RPLpS/TXXX	13668,7
25	25	RRFpS/TXXX	1023,29	RFVpS/TXXX	2792,13	RFApS/TXXX	1354,54	RRVpS/TXXX	2824,03	PPFpS/TXXX	1362,96	RFRpS/TXXX	3023,07	RRQpS/TXXX	13486,5
26	26	PFRpS/TXXX	1007,4	LRRpS/TXXX	2778,92	LPKpS/TXXX	1354,45	PFLpS/TXXX	2812,35	LAApS/TXXX	1349,4	RVApS/TXXX	3022,3	RRFpS/TXXX	13073,8
27	27	PPKpS/TXXX	999,6	RLRpS/TXXX	2738,06	FAKpS/TXXX	1338,26	RFApS/TXXX	2768,17	LAKpS/TXXX	1333,69	RPLpS/TXXX	3014,69	PAKpS/TXXX	12953,5
28	28	PPApS/TXXX	950,16	LARpS/TXXX	2728,77	RVRpS/TXXX	1326,89	LAKpS/TXXX	2755,28	RVKpS/TXXX	1331,13	FRRpS/TXXX	2975,18	RFKpS/TXXX	12926,2
29	29	RAVpS/TXXX	944,715	RPQpS/TXXX	2682,16	LRRpS/TXXX	1323,1	RVApS/TXXX	2740,72	RRQpS/TXXX	1326,42	RFLpS/TXXX	2892,94	RPQpS/TXXX	12909,8
30	30	RVKpS/TXXX	915,095	RPLpS/TXXX	2652,74	RRRps/TXXX	1291,67	PLRpS/TXXX	2730,52	RFRpS/TXXX	1325,51	FPRpS/TXXX	2864,42	RVFpS/TXXX	12818,8
31	31	RRLpS/TXXX	872,355	RGRpS/TXXX	2600,31	RVApS/TXXX	1273,35	RPQpS/TXXX	2703,97	RGApS/TXXX	1238,28	RRQpS/TXXX	2806,94	RGKpS/TXXX	12555,3
32	32	RFKpS/TXXX	860,33	FRKpS/TXXX	2583,95	PGRpS/TXXX	1194,96	PPKpS/TXXX	2677,09	RRRps/TXXX	1235,85	RFApS/TXXX	2806,19	PFApS/TXXX	12378,4
33	33	LRRpS/TXXX	835,725	RRQpS/TXXX	2533,37	RPLpS/TXXX	1194,29	LLRpS/TXXX	2672,35	RPLpS/TXXX	1217,64	RLApS/TXXX	2780,32	PFLpS/TXXX	12093,4
34	34	FVRpS/TXXX	834,625	FRApS/TXXX	2480,75	RFRpS/TXXX	1191,36	RRFpS/TXXX	2647,21	LARpS/TXXX	1216,47	RFQpS/TXXX	2678,85	RGRpS/TXXX	12080,7
35	35	RFRpS/TXXX	832,11	LVRpS/TXXX	2433,42	RGRpS/TXXX	1186,18	LVRpS/TXXX	2629,19	RGVpS/TXXX	1215,42	FARpS/TXXX	2677,91	RFFpS/TXXX	11983,2
36	36	RVApS/TXXX	817,44	PRRps/TXXX	2396,61	PPApS/TXXX	1181,73	RGKpS/TXXX	2617,24	RFLpS/TXXX	1212,02	RFKpS/TXXX	2656,68	LPApS/TXXX	11938,5
37	37	PFKpS/TXXX	808,17	PFRpS/TXXX	2363,62	RPVpS/TXXX	1154,75	RFFpS/TXXX	2611,97	FPKpS/TXXX	1168,95	RVFpS/TXXX	2552,65	RFQpS/TXXX	11920,2
38	38	RLKpS/TXXX	772,54	RGKpS/TXXX	2329,64	LVRpS/TXXX	1150,38	PFAPpS/TXXX	2590,45	PFKpS/TXXX	1150,96	PPApS/TXXX	2470,69	FPKpS/TXXX	11890
39	39	LVRpS/TXXX	743,585	PFAPpS/TXXX	2315,3	RRQpS/TXXX	1148,16	RFRpS/TXXX	2581,7	RRVpS/TXXX	1130,01	RGRpS/TXXX	2374,76	RGQpS/TXXX	11861,2
40	40	RFFpS/TXXX	719,105	PPFpS/TXXX	2306,93	RRLpS/TXXX	1143,88	RGLpS/TXXX	2568,58	RFVpS/TXXX	1121,85	RLKpS/TXXX	2317,32	RGLpS/TXXX	11763,3
41	41	FPRpS/TXXX	717,445	LRKpS/TXXX	2278,53	EAKpS/TXXX	1131,91	RFLpS/TXXX	2565,73	RVVpS/TXXX	1091,52	FPKpS/TXXX	2275,35	FRApS/TXXX	11740,3
42	42	RLQpS/TXXX	716,795	LLRps/TXXX	2269,86	RVQpS/TXXX	1131,9	RRQpS/TXXX	2560,59	LLRps/TXXX	1073	FAKpS/TXXX	2195,12	FAApS/TXXX	11721,4

Table S4

43	43	RVFpS/TXXX	715,105	RFQpS/TXXX	2243,89	PGKpS/TXXX	1131,04	PFKpS/TXXX	2543,09	FAApS/TXXX	1065,76	RLFpS/TXXX	2193,44	RVKpS/TXXX	11626,4
44	44	EAKpS/TXXX	702,615	RRLpS/TXXX	2220,52	LGKpS/TXXX	1124,21	RVQpS/TXXX	2538,31	FRKpS/TXXX	1065,75	RVLpS/TXXX	2164,3	RVQpS/TXXX	11558,4
45	45	EARpS/TXXX	681,915	RVApS/TXXX	2077,3	RVKpS/TXXX	1121,82	RVFpS/TXXX	2537,41	FRQpS/TXXX	1063,68	RVVpS/TXXX	2162,73	RVPpS/TXXX	11545,5
46	46	FAKpS/TXXX	662,12	PARpS/TXXX	2055,98	RGQpS/TXXX	1118,61	PPRpS/TXXX	2507,77	FRRpS/TXXX	1052,78	PRRpS/TXXX	2125,67	RFRpS/TXXX	11477,5
47	47	RVVpS/TXXX	657,425	RGApS/TXXX	2055,5	LLRpS/TXXX	1117,96	LPKpS/TXXX	2493,57	PFApS/TXXX	1036,83	RAEpS/TXXX	2110,95	LRRpS/TXXX	11370,1
48	48	RRGpS/TXXX	648,78	RLKpS/TXXX	2030,84	PLRpS/TXXX	1113,7	PGRpS/TXXX	2470,62	RLKpS/TXXX	1036,24	LVRpS/TXXX	2096,36	RGFpS/TXXX	11326,4
49	49	FRQpS/TXXX	644,61	PPRpS/TXXX	1999,25	RVFpS/TXXX	1108,09	LRKpS/TXXX	2467,45	PALpS/TXXX	1024,97	PARpS/TXXX	2090,15	LAApS/TXXX	11236,9
50	50	RVLpS/TXXX	643,91	PFKpS/TXXX	1966,43	LRKpS/TXXX	1105,2	LQKpS/TXXX	2408,22	RVApS/TXXX	1019,92	PAKpS/TXXX	2082,1	RVLpS/TXXX	11165,7
C-Terminal Sublibrary															
51	1	XXXpS/TVPF	3114,24	XXXpS/TAPF	5560,03	XXXpS/TAPP	3289,23	XXXpS/TAPP	4073,6	XXXpS/TAPF	3060,44	XXXpS/TAPP	8255,26	XXXpS/TAPF	20748,3
52	2	XXXpS/TAPP	2559,99	XXXpS/TAPP	4837,72	XXXpS/TAPF	2781,97	XXXpS/TAPF	3928,42	XXXpS/TAPP	2616,8	XXXpS/TVPF	7112,8	XXXpS/TAPP	20545,9
53	3	XXXpS/TAPF	2100	XXXpS/TVPF	4820,13	XXXpS/TAPL	2488,96	XXXpS/TVPL	3782,4	XXXpS/TAPL	2509,97	XXXpS/TFPL	6787,71	XXXpS/TFPL	19342,1
54	4	XXXpS/TAPL	1997,17	XXXpS/TVAF	4188,76	XXXpS/TFPL	2069,29	XXXpS/TAPL	3415,55	XXXpS/TFPP	2411,57	XXXpS/TAPF	6551,7	XXXpS/TAPL	18871,9
55	5	XXXpS/TVPL	1796,31	XXXpS/TVPL	4177,92	XXXpS/TVPF	2030,43	XXXpS/TFPL	3411,91	XXXpS/TLPF	2327,81	XXXpS/TAPL	5000,84	XXXpS/TVPF	17959,1
56	6	XXXpS/TFPL	1634,78	XXXpS/TFPL	3788,23	XXXpS/TGPP	1455,89	XXXpS/TVAF	3272,69	XXXpS/TFPL	2311,28	XXXpS/TVPL	4316,57	XXXpS/TAPE	16345,5
57	7	XXXpS/TEPL	1554,33	XXXpS/TLPF	3612,85	XXXpS/TVAF	1431,96	XXXpS/TVPF	3246	XXXpS/TVAF	2151,39	XXXpS/TFAL	4199,62	XXXpS/TVPP	16344,4
58	8	XXXpS/TEPR	1454,85	XXXpS/TFPF	3206,09	XXXpS/TFPR	1421,19	XXXpS/TLPL	3045,62	XXXpS/TVPF	1964,55	XXXpS/TVAL	4130,23	XXXpS/TFPR	15435,1
59	9	XXXpS/TEFP	1273,59	XXXpS/TAPL	3111,66	XXXpS/TVPP	1417,97	XXXpS/TAL	2951,34	XXXpS/TVPP	1717,06	XXXpS/TFAL	4042,42	XXXpS/TLPL	15315,7
60	10	XXXpS/TEVF	1182,62	XXXpS/TVAL	2986,48	XXXpS/TAAP	1412,98	XXXpS/TFAL	2933,45	XXXpS/TFPR	1643,5	XXXpS/TLPL	3837,09	XXXpS/TVPL	15277,2
61	11	XXXpS/TFAL	1061,6	XXXpS/TLPL	2851,04	XXXpS/TVPL	1356,58	XXXpS/TVAL	2902,76	XXXpS/TEPP	1552,01	XXXpS/TARF	3785,47	XXXpS/TEPR	15116,2
62	12	XXXpS/TAAP	1053,99	XXXpS/TFPP	2558,1	XXXpS/TFPF	1345,45	XXXpS/TEPR	2861,49	XXXpS/TVPL	1551,18	XXXpS/TFPR	3565,23	XXXpS/TAAP	15012
63	13	XXXpS/TVQF	1018,58	XXXpS/TFAP	2447,08	XXXpS/TAKF	1264,63	XXXpS/TLPF	2745,48	XXXpS/TFPF	1543,13	XXXpS/TLAL	3461,98	XXXpS/TFAP	14980,2
64	14	XXXpS/TLPL	995,715	XXXpS/TFPR	2411,35	XXXpS/TVPR	1264,42	XXXpS/TFAP	2708,26	XXXpS/TLPL	1536,41	XXXpS/TFPF	3417,94	XXXpS/TARF	14974,5
65	15	XXXpS/TAQF	975,08	XXXpS/TVGF	2403,82	XXXpS/TEPF	1214,53	XXXpS/TEPL	2662,83	XXXpS/TVAL	1497,29	XXXpS/TLPF	3316,1	XXXpS/TFAL	14517,2
66	16	XXXpS/TVPP	968,305	XXXpS/TEPP	2391,02	XXXpS/TEPL	1205,69	XXXpS/TFPF	2592,15	XXXpS/TFAL	1407,39	XXXpS/TVAF	3303,51	XXXpS/TVAL	14402,4
67	17	XXXpS/TAAL	958,935	XXXpS/TARF	2294,04	XXXpS/TLPR	1202,68	XXXpS/TVPP	2587,89	XXXpS/TAFF	1381,51	XXXpS/TVGF	3148,76	XXXpS/TAAL	14246,6
68	18	XXXpS/TFPR	951,02	XXXpS/TFAL	2169,88	XXXpS/TEPR	1156,57	XXXpS/TARP	2532,33	XXXpS/TAAL	1352,11	XXXpS/TLAF	3100,07	XXXpS/TAQF	14116,2
69	19	XXXpS/TFAP	908,755	XXXpS/TAPE	2111,43	XXXpS/TAQF	1121,77	XXXpS/TFPR	2490,71	XXXpS/TAPE	1302,07	XXXpS/TVPP	3038,65	XXXpS/TEPF	13915,5
70	20	XXXpS/TAPE	900,665	XXXpS/TVQF	2098,32	XXXpS/TLPL	1103,46	XXXpS/TLAL	2452,88	XXXpS/TLPP	1296,05	XXXpS/TLF	3010,93	XXXpS/TVQL	13812
71	21	XXXpS/TARF	868,93	XXXpS/TLAF	2090,07	XXXpS/TFAP	1074,49	XXXpS/TVQL	2420,89	XXXpS/TGPP	1232,29	XXXpS/TEVF	2908,16	XXXpS/TLAL	13570,5
72	22	XXXpS/TGPP	868,045	XXXpS/TEPF	2075,62	XXXpS/TLF	1064,14	XXXpS/TAPE	2389,34	XXXpS/TFAP	1197,79	XXXpS/TAAL	2899,41	XXXpS/TEPL	13520,8
73	23	XXXpS/TLF	797,13	XXXpS/TVPP	2070,12	XXXpS/TEPP	1060,79	XXXpS/TARF	2357,92	XXXpS/TAKF	1172,65	XXXpS/TAAP	2830,99	XXXpS/TLAF	13492,1
74	24	XXXpS/TVAL	791,135	XXXpS/TAAP	2052,32	XXXpS/TAAP	1050,46	XXXpS/TVPR	2339,37	XXXpS/TAAP	1151,17	XXXpS/TAQF	2805,24	XXXpS/TFPF	13446,2
75	25	XXXpS/TFGP	776,05	XXXpS/TVLF	2049,17	XXXpS/TVAL	1049,23	XXXpS/TVGF	2276,57	XXXpS/TAFP	1148,05	XXXpS/TAPE	2525,15	XXXpS/TVGF	13174,9
76	26	XXXpS/TEPP	774,29	XXXpS/TEPR	2044,79	XXXpS/TARF	1042,17	XXXpS/TVQF	2253,25	XXXpS/TARP	1147,63	XXXpS/TEPF	2454,61	XXXpS/TLPE	12641,1
77	27	XXXpS/TLPF	745,395	XXXpS/TEPL	1941,15	XXXpS/TEVF	1031,24	XXXpS/TFPP	2235,9	XXXpS/TFAP	1069,03	XXXpS/TVQL	2393,38	XXXpS/TFGP	12382,1
78	28	XXXpS/TVPR	735,345	XXXpS/TLPP	1812,89	XXXpS/TFAL	1005,96	XXXpS/TLAF	2198,19	XXXpS/TVPR	1053,16	XXXpS/TAEF	2304,51	XXXpS/TLPF	12318,3
79	29	XXXpS/TFPF	729,235	XXXpS/TAFF	1791,57	XXXpS/TFPP	981,81	XXXpS/TAKF	2179,32	XXXpS/TLAF	1048,36	XXXpS/TEPL	2241,83	XXXpS/TAKF	12103,4
80	30	XXXpS/TAEF	719	XXXpS/TLF	1787,4	XXXpS/TFAP	981,58	XXXpS/TVAR	2149,13	XXXpS/TVFF	1000,58	XXXpS/TEPR	2198,16	XXXpS/TVLF	12053,1
81	31	XXXpS/TARP	704,16	XXXpS/TVPR	1773,28	XXXpS/TVQF	980,87	XXXpS/TAQL	2145,07	XXXpS/TVGL	983,44	XXXpS/TVLF	2136,4	XXXpS/TLF	12052,9
82	32	XXXpS/TLAL	701,225	XXXpS/TLPR	1747,18	XXXpS/TVQL	978,36	XXXpS/TVLF	2106,16	XXXpS/TLPR	966,845	XXXpS/TAKF	2086,21	XXXpS/TGPP	12008,1
83	33	XXXpS/TVAF	698,35	XXXpS/TAKF	1740,36	XXXpS/TAAL	969,3	XXXpS/TLPR	2100,64	XXXpS/TQPP	961,055	XXXpS/TFQF	2066,32	XXXpS/TVQF	11868,2
84	34	XXXpS/TVRF	691,295	XXXpS/TAQF	1725,54	XXXpS/TVRR	966,895	XXXpS/TAQF	2066,31	XXXpS/TVQF	955,385	XXXpS/TFGP	2005,51	XXXpS/TEVF	11792,1
85	35	XXXpS/TAQF	687,39	XXXpS/TLAL	1611,98	XXXpS/TLPF	956,745	XXXpS/TVVL	2051,56	XXXpS/TFGP	907,475	XXXpS/TVQF	1938,5	XXXpS/TVPR	11482,6
86	36	XXXpS/TAKP	671,03	XXXpS/TVFF	1572,27	XXXpS/TKKF	949,14	XXXpS/TGPP	2044,29	XXXpS/TVQL	895,675	XXXpS/TLPR	1844,55	XXXpS/TALP	11215
87	37	XXXpS/TFGF	670,265	XXXpS/TFAP	1556,01	XXXpS/TALP	924,295	XXXpS/TVGP	2022,83	XXXpS/TFKL	881,62	XXXpS/TFAP	1795,31	XXXpS/TEPP	10959,5
88	38	XXXpS/TAAP	637,295	XXXpS/TVRF	1355,14	XXXpS/TLAF	912,69	XXXpS/TALP	1988,99	XXXpS/TALP	880,71	XXXpS/TGPP	1778,94	XXXpS/TAFF	10561,9

Table S4

89	39	XXXpS/TFLF	620,38	XXXpS/TVEF	1346,52	XXXpS/TKKR	895,42	XXXpS/TAQF	1947,52	XXXpS/TAVF	877,705	XXXpS/TLPE	1666,49	XXXpS/TFPE	10422
90	40	XXXpS/TAKF	618,565	XXXpS/TFQF	1344,47	XXXpS/TFRP	892,43	XXXpS/TAKL	1942,18	XXXpS/TARF	874,025	XXXpS/TVPR	1619,77	XXXpS/TFLF	10195,9
91	41	XXXpS/TVGF	613,28	XXXpS/TAEF	1278,51	XXXpS/TARL	892,005	XXXpS/TVKP	1935,49	XXXpS/TLQL	867,935	XXXpS/TFLF	1598,96	XXXpS/TFPP	10182,5
92	42	XXXpS/TGPL	597,125	XXXpS/TVGL	1266,5	XXXpS/TAPE	891,31	XXXpS/AAF	1929,99	XXXpS/TVLF	861,95	XXXpS/TAFF	1595,13	XXXpS/TAAP	9960,85
93	43	XXXpS/TVAR	581,145	XXXpS/TVAR	1228,76	XXXpS/TAQL	885,54	XXXpS/TKAL	1890,72	XXXpS/TVAR	856,735	XXXpS/TLFL	1581,65	XXXpS/TLPR	9871,58
94	44	XXXpS/TFVR	579,75	XXXpS/TFGP	1202,57	XXXpS/TAKP	884,595	XXXpS/TARL	1882,04	XXXpS/TAKL	836,185	XXXpS/TFPP	1580,96	XXXpS/TAQP	9800,53
95	45	XXXpS/TALP	569,715	XXXpS/TLPE	1181,02	XXXpS/TAEF	884,565	XXXpS/TGPL	1879,78	XXXpS/TEPL	833,105	XXXpS/TFVR	1565,59	XXXpS/TAVF	9785,05
96	46	XXXpS/TGPF	563,555	XXXpS/TAAL	1167,51	XXXpS/TGKR	832,62	XXXpS/TFVR	1808,46	XXXpS/TVRL	806,01	XXXpS/TALP	1524,26	XXXpS/TARL	9633,93
97	47	XXXpS/TFPP	560,05	XXXpS/TAVF	1153,05	XXXpS/TVPE	832,04	XXXpS/TEPF	1807,77	XXXpS/TLAL	805,3	XXXpS/TLGF	1522,66	XXXpS/TFAP	9549,27
98	48	XXXpS/TLAF	551,13	XXXpS/TVQL	1150,25	XXXpS/TLAL	830,645	XXXpS/TAAP	1789,42	XXXpS/TAQF	804,31	XXXpS/TFAR	1497,55	XXXpS/FFL	9367,74
99	49	XXXpS/TARL	545,29	XXXpS/TAVL	1056,22	XXXpS/TGKL	821,765	XXXpS/TLPP	1764,12	XXXpS/TVVF	803,87	XXXpS/TAVL	1489,89	XXXpS/TVAF	9327,74
100	50	XXXpS/TVLF	534,75	XXXpS/TVGP	1045,99	XXXpS/TAQP	820,095	XXXpS/TVEF	1737,49	XXXpS/TAQP	798,95	XXXpS/TLQF	1460,09	XXXpS/TFGF	9294,39

Table S4: Top 50 sequences of seven Cy3 labeled 14-3-3 isoforms from N-terminal sublibrary and C-terminal sublibrary respectively, based on the ranking of relative fluorescent (RF).

Table S5

Rank	A		B		C		D		E		F		G	
	Peptide	Cy3 Beta	Peptide	Cy3 Epsilon	Peptide	Cy3 Eta	Peptide	Cy3 Gamma	Peptide	Cy3 Sigma	Peptide	Cy3 Tau	Peptide	Cy3 Zeta
	Sequence	RF	Sequence	RF	Sequence	RF	Sequence	RF	Sequence	RF	Sequence	RF	Sequence	RF
1	XXXpS/TVPF	3114,24	XXXpS/TAPF	5560,03	XXXpS/TAPP	3289,23	XXXpS/TAPP	4073,6	XXXpS/TAPF	3060,44	XXXpS/TAPP	8255,26	XXXpS/TAPF	20748,3
2	XXXpS/TAPP	2559,99	RAVpS/TXXX	5017,17	XXXpS/TAPF	2781,97	RAKpS/TXXX	3949,43	RAKpS/TXXX	2917,91	XXXpS/TVPF	7112,8	XXXpS/TAPP	20545,9
3	RARpS/TXXX	2240,08	XXXpS/TAPP	4837,72	XXXpS/TAPL	2488,96	XXXpS/TAPF	3928,42	XXXpS/TAPP	2616,8	XXXpS/TFPL	6787,71	XXXpS/TFPL	19342,1
4	XXXpS/TAPF	2100	XXXpS/TVPF	4820,13	RAApS/TXXX	2260,75	RAQpS/TXXX	3826,73	XXXpS/TAPL	2509,97	XXXpS/TAPF	6551,7	XXXpS/TAPL	18871,9
5	XXXpS/TAPL	1997,17	RAKpS/TXXX	4595,44	RAKpS/TXXX	2234,17	XXXpS/TVPL	3782,4	XXXpS/TFPP	2411,57	RAKpS/TXXX	6175,01	XXXpS/TVPF	17959,1
6	RAApS/TXXX	1989,67	RAApS/TXXX	4395,29	RRApS/TXXX	2190,06	RAApS/TXXX	3755,2	RAApS/TXXX	2382,66	RARpS/TXXX	5958,16	RPVpS/TXXX	17579,8
7	RAQpS/TXXX	1970,32	XXXpS/TVAF	4188,76	XXXpS/TFPL	2069,29	RARpS/TXXX	3723,8	XXXpS/TLPF	2327,81	RAApS/TXXX	5581,72	RAFpS/TXXX	17486,2
8	XXXpS/TVPL	1796,31	XXXpS/TVPL	4177,92	XXXpS/TVPF	2030,43	RAVpS/TXXX	3498,08	RAVpS/TXXX	2317,37	RAFpS/TXXX	5435,7	RAApS/TXXX	16992,9
9	RVRpS/TXXX	1751,7	RPApS/TXXX	3995,38	RPKpS/TXXX	1864,9	RPRpS/TXXX	3431,95	XXXpS/TFPL	2311,28	RPFpS/TXXX	5046,04	RPApS/TXXX	16780
10	RAKpS/TXXX	1686,44	RAQpS/TXXX	3859,92	RAQpS/TXXX	1824,16	XXXpS/TAPL	3415,55	XXXpS/TVAF	2151,39	RAVpS/TXXX	5008,23	RRApS/TXXX	16553,6
11	RFPpS/TXXX	1676,71	XXXpS/TFPL	3788,23	RFPpS/TXXX	1735,7	RRApS/TXXX	3413,79	RFKpS/TXXX	2023,16	XXXpS/TAPL	5000,84	PPApS/TXXX	16464,4
12	XXXpS/TFPL	1634,78	RARpS/TXXX	3777,68	RPRpS/TXXX	1651,25	XXXpS/TFPL	3411,91	RPKpS/TXXX	2022,22	RAQpS/TXXX	4856,67	XXXpS/TAPE	16345,5
13	XXXpS/TEPL	1554,33	RRApS/TXXX	3774,38	RPQpS/TXXX	1633,51	RALpS/TXXX	3321,41	RRApS/TXXX	1989,21	RPApS/TXXX	4700,5	XXXpS/TVPP	16344,4
14	RALpS/TXXX	1540,77	RFKpS/TXXX	3700,88	XXXpS/TXXX	1627,92	RAVpS/TVAF	3272,69	RAVpS/TXXX	1975,7	RRApS/TXXX	4376,3	RARpS/TXXX	16291,3
15	RVQpS/TXXX	1465,83	RRKpS/TXXX	3692,36	RAFpS/TXXX	1626,08	RPLpS/TXXX	3259,51	FAKpS/TXXX	1974,29	XXXpS/TVPL	4316,57	RPKpS/TXXX	16174
16	XXXpS/TEPR	1454,85	XXXpS/TLPF	3612,85	RARpS/TXXX	1511,45	PAKpS/TXXX	3254,36	XXXpS/TVPF	1964,55	XXXpS/TFAL	4199,62	RVRpS/TXXX	16042,5
17	RAFpS/TXXX	1453,27	RALpS/TXXX	3562,93	LAKpS/TXXX	1503,41	XXXpS/TVPF	3246	RPApS/TXXX	1927,68	RALpS/TXXX	4160,81	RAQpS/TXXX	15924,6
18	RRRpS/TXXX	1434,13	RFApS/TXXX	3552,58	PAKpS/TXXX	1495,16	RAFpS/TXXX	3234,72	RARpS/TXXX	1900,55	XXXpS/TVAL	4130,23	RAVpS/TXXX	15559,9
19	RPRpS/TXXX	1403,61	RPFpS/TXXX	3544,91	RAVpS/TXXX	1464,08	RVRpS/TXXX	3189,2	FKFpS/TXXX	1838,78	XXXpS/TFAF	4042,42	RPRpS/TXXX	15485,9
20	RRKpS/TXXX	1353,91	RRFpS/TXXX	3481,3	RRVpS/TXXX	1461,39	RPKpS/TXXX	3188,06	RAFpS/TXXX	1831,09	XXXpS/TLPL	3837,09	XXXpS/TFPR	15435,1
21	RRVpS/TXXX	1308,39	RFFpS/TXXX	3465,14	XXXpS/GPP	1455,89	RPVpS/TXXX	3162,95	RPRpS/TXXX	1796,53	XXXpS/TARF	3785,47	XXXpS/TLPL	15315,7
22	RRQpS/TXXX	1296	RRVpS/TXXX	3450,92	RRFpS/TXXX	1450,26	RPApS/TXXX	3159,78	RALpS/TXXX	1745,36	EGPpS/TXXX	3738,72	XXXpS/TVPL	15277,2
23	PAKpS/TXXX	1284,9	RPVpS/TXXX	3431,94	XXXpS/TVAF	1431,96	RFKpS/TXXX	3106,03	XXXpS/TVPP	1717,06	RPKpS/TXXX	3642,82	RAKpS/TXXX	15236,3
24	XXXpS/TEPF	1273,59	RFRpS/TXXX	3388,44	RALpS/TXXX	1431,29	RFPpS/TXXX	3086,94	RPFpS/TXXX	1659,37	RRRpS/TXXX	3636,39	XXXpS/TEPR	15116,2
25	RPQpS/TXXX	1234,6	RPRpS/TXXX	3371,3	RRKpS/TXXX	1427,5	XXXpS/TLPL	3045,62	XXXpS/TFPR	1643,5	RRVpS/TXXX	3627,51	PRRpS/TXXX	15074,4
26	RRApS/TXXX	1227,39	RAFpS/TXXX	3343,93	XXXpS/TFPR	1421,19	PGKpS/TXXX	3026,48	RFAPpS/TXXX	1628,78	XXXpS/TFPR	3565,23	XXXpS/TAAF	15012
27	RPKpS/TXXX	1189,3	RVRpS/TXXX	3218,51	XXXpS/TVPP	1417,97	XXXpS/TAAL	2951,34	RPVpS/TXXX	1625,23	RRFpS/TXXX	3534,75	XXXpS/TFAF	14980,2
28	XXXpS/VEF	1182,62	XXXpS/TFPF	3206,09	XXXpS/TAAF	1412,98	LGKpS/TXXX	2949,3	RRKpS/TXXX	1571,27	RPVpS/TXXX	3483,16	XXXpS/TARF	14974,5
29	RPApS/TXXX	1140,97	XXXpS/TAPL	3111,66	PFRpS/TXXX	1401,52	XXXpS/TFAL	2933,45	XXXpS/TEPP	1552,01	XXXpS/TLAL	3461,98	RVApS/TXXX	14781,6
30	LPKpS/TXXX	1084,73	RFLpS/TXXX	3065,1	PFKpS/TXXX	1381,74	RRRpS/TXXX	2922,93	XXXpS/TVPL	1551,18	XXXpS/TFPF	3417,94	RALpS/TXXX	14586,8
31	RPLpS/TXXX	1080,22	RPKpS/TXXX	3017,28	PPKpS/TXXX	1373,18	RRKpS/TXXX	2917,45	RGKpS/TXXX	1549,02	PFRpS/TXXX	3353,6	XXXpS/TFAL	14517,2
32	RFLpS/TXXX	1073,54	XXXpS/TVAL	2986,48	RFLpS/TXXX	1369,97	FAKpS/TXXX	2914,29	XXXpS/TFPF	1543,13	RPRpS/TXXX	3349,26	RRKpS/TXXX	14486,6
33	XXXpS/TFAL	1061,6	RVKpS/TXXX	2870,51	RFKpS/TXXX	1367,94	XXXpS/TVAL	2902,76	PAKpS/TXXX	1541,3	XXXpS/TLPF	3316,1	RRVpS/TXXX	14458,2
34	XXXpS/TAAF	1053,99	FRRpS/TXXX	2869,19	FPKpS/TXXX	1366,31	XXXpS/TEPR	2861,49	XXXpS/TLPL	1536,41	XXXpS/TVAF	3303,51	XXXpS/TVAL	14402,4
35	FARpS/TXXX	1040,7	XXXpS/TLPL	2851,04	XXXpS/TVPL	1356,58	LRRpS/TXXX	2838,56	XXXpS/TVAL	1497,29	RRKpS/TXXX	3228,49	RPFpS/TXXX	14269,8
36	FRRpS/TXXX	1026,18	RFVpS/TXXX	2792,13	RFApS/TXXX	1354,54	RRLpS/TXXX	2836,56	RVRpS/TXXX	1496,75	RVRpS/TXXX	3187,5	XXXpS/TAAL	14246,6
37	RRFpS/TXXX	1023,29	LRRpS/TXXX	2778,92	LPKpS/TXXX	1354,45	RRVpS/TXXX	2824,03	RFFpS/TXXX	1490,13	RRLpS/TXXX	3155,2	RFApS/TXXX	14224,9
38	XXXpS/TVQF	1018,58	RLRpS/TXXX	2738,06	XXXpS/TFPF	1345,45	PFLpS/TXXX	2812,35	RPQpS/TXXX	1468,87	XXXpS/TVGF	3148,76	RRLpS/TXXX	14186,4
39	PFRpS/TXXX	1007,4	LARpS/TXXX	2728,77	FAKpS/TXXX	1338,26	RFAPpS/TXXX	2768,17	XXXpS/TFAL	1407,39	LRRpS/TXXX	3118,64	XXXpS/TAQF	14116,2
40	PPKpS/TXXX	999,6	RPQpS/TXXX	2682,16	RVRpS/TXXX	1326,89	LAKpS/TXXX	2755,28	XXXpS/TAFF	1381,51	RPQpS/TXXX	3118,56	XXXpS/TEPF	13915,5
41	XXXpS/TLPL	995,715	RPLpS/TXXX	2652,74	LRRpS/TXXX	1323,1	XXXpS/TLPF	2745,48	RRFpS/TXXX	1369,2	XXXpS/TLAF	3100,07	LRKpS/TXXX	13879,2
42	XXXpS/TAQF	975,08	RGRpS/TXXX	2600,31	RRRpS/TXXX	1291,67	RVApS/TXXX	2740,72	PPFpS/TXXX	1362,96	RFFpS/TXXX	3066,25	RFLpS/TXXX	13866,4

Table S5

43	XXXpS/TVPP	968,305	FRKpS/TXXX	2583,95	RVApS/TXXX	1273,35	PLRpS/TXXX	2730,52	XXXpS/TAAL	1352,11	XXXpS/TVPP	3038,65	XXXpS/TVQL	13812
44	XXXpS/TAAL	958,935	XXXpS/TFPP	2558,1	XXXpS/TAKF	1264,63	XXXpS/TFAF	2708,26	LAApS/TXXX	1349,4	RFRpS/TXXX	3023,07	RPLpS/TXXX	13668,7
45	XXXpS/TFPR	951,02	RRQpS/TXXX	2533,37	XXXpS/TVPR	1264,42	RPQpS/TXXX	2703,97	LAKpS/TXXX	1333,69	RVApS/TXXX	3022,3	XXXpS/TLAL	13570,5
46	PPApS/TXXX	950,16	FRApS/TXXX	2480,75	XXXpS/TEPF	1214,53	PPKpS/TXXX	2677,09	RVKpS/TXXX	1331,13	RPLpS/TXXX	3014,69	XXXpS/TEPL	13520,8
47	RAVpS/TXXX	944,715	XXXpS/TFAF	2447,08	XXXpS/TEPL	1205,69	LLRpS/TXXX	2672,35	RRQpS/TXXX	1326,42	XXXpS/TALF	3010,93	XXXpS/TLAF	13492,1
48	RVKpS/TXXX	915,095	LVRpS/TXXX	2433,42	XXXpS/TLPR	1202,68	XXXpS/TEPL	2662,83	RFRpS/TXXX	1325,51	FRRpS/TXXX	2975,18	RRQpS/TXXX	13486,5
49	XXXpS/TFAF	908,755	XXXpS/TFPR	2411,35	PGRpS/TXXX	1194,96	RRFpS/TXXX	2647,21	XXXpS/TAPE	1302,07	XXXpS/TEVF	2908,16	XXXpS/TFPF	13446,2
50	XXXpS/TAPE	900,665	XXXpS/TVGF	2403,82	RPLpS/TXXX	1194,29	LVRpS/TXXX	2629,19	XXXpS/TLPP	1296,05	XXXpS/TAAL	2899,41	XXXpS/TVGF	13174,9
51	RRLpS/TXXX	872,355	PRRpS/TXXX	2396,61	RFRpS/TXXX	1191,36	RGKpS/TXXX	2617,24	RGApS/TXXX	1238,28	RFLpS/TXXX	2892,94	RRFpS/TXXX	13073,8
52	XXXpS/TARF	868,93	XXXpS/TEPP	2391,02	RGRpS/TXXX	1186,18	RFFpS/TXXX	2611,97	RRRpS/TXXX	1235,85	FPRpS/TXXX	2864,42	PAKpS/TXXX	12953,5
53	XXXpS/TGPP	868,045	PFRpS/TXXX	2363,62	PPApS/TXXX	1181,73	XXXpS/TFPF	2592,15	XXXpS/TGPP	1232,29	XXXpS/TAAF	2830,99	RFKpS/TXXX	12926,2
54	RFKpS/TXXX	860,33	RGKpS/TXXX	2329,64	XXXpS/TEPR	1156,57	PFAPs/TXXX	2590,45	RPLpS/TXXX	1217,64	RRQpS/TXXX	2806,94	RPQpS/TXXX	12909,8
55	LRRpS/TXXX	835,725	PFApS/TXXX	2315,3	RPVpS/TXXX	1154,75	XXXpS/TVPP	2587,89	LARpS/TXXX	1216,47	RFApS/TXXX	2806,19	RVFpS/TXXX	12818,8
56	FVRpS/TXXX	834,625	PPFpS/TXXX	2306,93	LVRpS/TXXX	1150,38	RFRpS/TXXX	2581,7	RGVpS/TXXX	1215,42	XXXpS/TAQF	2805,24	XXXpS/TLPE	12641,1
57	RFRpS/TXXX	832,11	XXXpS/TARF	2294,04	RRQpS/TXXX	1148,16	RGLpS/TXXX	2568,58	RFLpS/TXXX	1212,02	RLApS/TXXX	2780,32	RGKpS/TXXX	12555,3
58	RVApS/TXXX	817,44	LRKpS/TXXX	2278,53	RRLpS/TXXX	1143,88	RFLpS/TXXX	2565,73	XXXpS/TFAF	1197,79	RFQpS/TXXX	2678,85	XXXpS/TFGP	12382,1
59	PFKpS/TXXX	808,17	LLRpS/TXXX	2269,86	EAKpS/TXXX	1131,91	RRQpS/TXXX	2560,59	XXXpS/TAKF	1172,65	FARpS/TXXX	2677,91	PFAPs/TXXX	12378,4
60	XXXpS/TALF	797,13	RFQpS/TXXX	2243,89	RVQpS/TXXX	1131,9	PFKpS/TXXX	2543,09	FPKpS/TXXX	1168,95	RFKpS/TXXX	2656,68	XXXpS/TLPF	12318,3
61	XXXpS/TVAL	791,135	RRLpS/TXXX	2220,52	PGKpS/TXXX	1131,04	RVQpS/TXXX	2538,31	XXXpS/TAAP	1151,17	RVFpS/TXXX	2552,65	XXXpS/TAKF	12103,4
62	XXXpS/TFGP	776,05	XXXpS/TFAL	2169,88	LGKpS/TXXX	1124,21	RVFpS/TXXX	2537,41	PFKpS/TXXX	1150,96	XXXpS/TAPE	2525,15	PFLpS/TXXX	12093,4
63	XXXpS/TEPP	774,29	XXXpS/TAPE	2111,43	RVKpS/TXXX	1121,82	XXXpS/TARP	2532,33	XXXpS/TAFP	1148,05	PPApS/TXXX	2470,69	RGRpS/TXXX	12080,7
64	RLKpS/TXXX	772,54	XXXpS/TVQF	2098,32	XXXpS/TAQF	1121,77	PFRpS/TXXX	2507,77	XXXpS/TARP	1147,63	XXXpS/TEPF	2454,61	XXXpS/TVLF	12053,1
65	XXXpS/TLPF	745,395	XXXpS/TLAF	2090,07	RGQpS/TXXX	1118,61	LPKpS/TXXX	2493,57	RRVpS/TXXX	1130,01	XXXpS/TVQL	2393,38	XXXpS/TLF	12052,9
66	LVRpS/TXXX	743,585	RVApS/TXXX	2077,3	LLRpS/TXXX	1117,96	XXXpS/TFPR	2490,71	RFVpS/TXXX	1121,85	RGRpS/TXXX	2374,76	XXXpS/TGPP	12008,1
67	XXXpS/TVPR	735,345	XXXpS/TEPF	2075,62	PLRpS/TXXX	1113,7	PGRpS/TXXX	2470,62	RVVpS/TXXX	1091,52	RLKpS/TXXX	2317,32	RFFpS/TXXX	11983,2
68	XXXpS/TFPF	729,235	XXXpS/TVPP	2070,12	RVFpS/TXXX	1108,09	LRKpS/TXXX	2467,45	LLRpS/TXXX	1073	XXXpS/TAEF	2304,51	LPAPs/TXXX	11938,5
69	RFFpS/TXXX	719,105	PARpS/TXXX	2055,98	LRKpS/TXXX	1105,2	XXXpS/TLAL	2452,88	XXXpS/TFAP	1069,03	FPKpS/TXXX	2275,35	RFQpS/TXXX	11920,2
70	XXXpS/TAEF	719	RGApS/TXXX	2055,5	XXXpS/TLPL	1103,46	XXXpS/TVQL	2420,89	FAApS/TXXX	1065,76	XXXpS/TEPL	2241,83	FPKpS/TXXX	11890
71	FPRpS/TXXX	717,445	XXXpS/TAAF	2052,32	RGKpS/TXXX	1101,89	LQKpS/TXXX	2408,22	FRKpS/TXXX	1065,75	XXXpS/TEPR	2198,16	XXXpS/TVGF	11868,2
72	RLQpS/TXXX	716,795	XXXpS/TVLF	2049,17	RLKpS/TXXX	1099,72	FRRpS/TXXX	2397,37	RFQpS/TXXX	1063,68	FAKpS/TXXX	2195,12	RGQpS/TXXX	11861,2
73	RVFpS/TXXX	715,105	XXXpS/TEPR	2044,79	PVRpS/TXXX	1078,56	LARpS/TXXX	2394,61	XXXpS/TVPR	1053,16	RLFpS/TXXX	2193,44	XXXpS/TEVF	11792,1
74	XXXpS/TARP	704,16	RLKpS/TXXX	2030,84	PPQpS/TXXX	1076,72	RVLpS/TXXX	2392,26	FRRpS/TXXX	1052,78	RVLpS/TXXX	2164,3	RGLpS/TXXX	11763,3
75	EAKpS/TXXX	702,615	PPRpS/TXXX	1999,25	XXXpS/TFAF	1074,49	XXXpS/TAPE	2389,34	XXXpS/TLAF	1048,36	RVVpS/TXXX	2162,73	FRAPs/TXXX	11740,3
76	XXXpS/TLAL	701,225	PFKpS/TXXX	1966,43	FRRpS/TXXX	1073,27	PRRpS/TXXX	2374,54	PFApS/TXXX	1036,83	XXXpS/TVLF	2136,4	FAApS/TXXX	11721,4
77	XXXpS/TVAF	698,35	PLRpS/TXXX	1952,33	XXXpS/TLAL	1064,14	XXXpS/TARF	2357,92	RLKpS/TXXX	1036,24	PRRpS/TXXX	2125,67	RVKpS/TXXX	11626,4
78	XXXpS/TVRF	691,295	XXXpS/TEPL	1941,15	XXXpS/TEPP	1060,79	FARpS/TXXX	2343,95	PALpS/TXXX	1024,97	RAEpS/TXXX	2110,95	RVQpS/TXXX	11558,4
79	XXXpS/TAQP	687,39	RVFpS/TXXX	1927,56	RFFpS/TXXX	1051,57	XXXpS/TVPR	2339,37	RVApS/TXXX	1019,92	LVRpS/TXXX	2096,36	RVVpS/TXXX	11545,5
80	EARpS/TXXX	681,915	LAKpS/TXXX	1904,59	XXXpS/TAAP	1050,46	PLKpS/TXXX	2319,99	LGKpS/TXXX	1019,61	PARpS/TXXX	2090,15	XXXpS/TVPR	11482,6
81	XXXpS/TAKP	671,03	RGFpS/TXXX	1901,75	XXXpS/TVAL	1049,23	FFKpS/TXXX	2308,75	FARpS/TXXX	1018,99	XXXpS/TAKF	2086,21	RFRpS/TXXX	11477,5
82	XXXpS/TFGF	670,265	PAKpS/TXXX	1899,17	RREpS/TXXX	1047,91	XXXpS/TVGF	2276,57	LPKpS/TXXX	1004,73	PAKpS/TXXX	2082,1	LRRpS/TXXX	11370,1
83	FAKpS/TXXX	662,12	LPRpS/TXXX	1878,36	LFKpS/TXXX	1046,18	PPApS/TXXX	2275,62	PAFpS/TXXX	1000,6	LAKpS/TXXX	2066,46	RGFpS/TXXX	11326,4
84	RVVpS/TXXX	657,425	RGVpS/TXXX	1831,86	XXXpS/TARF	1042,17	XXXpS/TVQF	2253,25	XXXpS/TVFF	1000,58	XXXpS/TVQF	2066,32	LAApS/TXXX	11236,9
85	RRQpS/TXXX	648,78	RVLpS/TXXX	1825,53	PRRpS/TXXX	1041,75	RFQpS/TXXX	2252,81	RLRpS/TXXX	998,39	LFRpS/TXXX	2022	XXXpS/TALP	11215
86	FRQpS/TXXX	644,61	XXXpS/TLPP	1812,89	RQRpS/TXXX	1035,15	LGRpS/TXXX	2246,06	RGFpS/TXXX	996,085	XXXpS/TFGP	2005,51	RVLpS/TXXX	11165,7
87	RVLpS/TXXX	643,91	XXXpS/TAFF	1791,57	XXXpS/TEVF	1031,24	XXXpS/TFPP	2235,9	XXXpS/TVGL	983,44	RGFpS/TXXX	1996,26	LAKpS/TXXX	11153,1

Table S5

88	XXXpS/TAAP	637,295	XXXpS/TALF	1787,4	RVVpS/TXXX	1023,91	RLRpS/TXXX	2217,78	RAGpS/TXXX	968,105	FRKpS/TXXX	1987,8	PFRpS/TXXX	11111,1
89	FPKpS/TXXX	635,575	LFRpS/TXXX	1780,21	RAEpS/TXXX	1022,82	PVKpS/TXXX	2199,49	XXXpS/TLPR	966,845	FLRpS/TXXX	1977,1	PPFpS/TXXX	10967,1
90	RREpS/TXXX	633,49	XXXpS/TVPR	1773,28	LFRpS/TXXX	1020,42	XXXpS/TLAF	2198,19	LRRpS/TXXX	966,075	RVKpS/TXXX	1942,15	XXXpS/TEPP	10959,5
91	RAGpS/TXXX	621,64	FVRpS/TXXX	1761,81	RLApS/TXXX	1019,43	LAApS/TXXX	2190,34	XXXpS/TQPP	961,055	XXXpS/TVQF	1938,5	RRRpS/TXXX	10929,6
92	XXXpS/TLF	620,38	XXXpS/TLPR	1747,18	RFQpS/TXXX	1019	RVKpS/TXXX	2189,81	RGGpS/TXXX	957,51	RLVpS/TXXX	1924,89	LVRpS/TXXX	10746,4
93	XXXpS/TAKF	618,565	FFRpS/TXXX	1745,5	LQKpS/TXXX	1014,76	LVKpS/TXXX	2182,88	XXXpS/TVQF	955,385	PFApS/TXXX	1884,6	RFGpS/TXXX	10697,1
94	XXXpS/TVGF	613,28	XXXpS/TAKF	1740,36	XXXpS/TFAL	1005,96	PAVpS/TXXX	2180,44	FRApS/TXXX	953,17	RLQpS/TXXX	1871,37	LVKpS/TXXX	10696,7
95	RAEpS/TXXX	612,065	RVVpS/TXXX	1734,4	LARpS/TXXX	994,065	XXXpS/TAKF	2179,32	LPApS/TXXX	948,615	PPFpS/TXXX	1861,87	PAVpS/TXXX	10656,7
96	RFQpS/TXXX	609,085	XXXpS/TAQF	1725,54	PFApS/TXXX	993,485	PFQpS/TXXX	2176,2	LVKpS/TXXX	944,675	XXXpS/TLPR	1844,55	RLVpS/TXXX	10626,2
97	PPFpS/TXXX	606,93	LFKpS/TXXX	1717,43	XXXpS/TFPP	981,81	PPFpS/TXXX	2165,96	PLKpS/TXXX	943,285	FRQpS/TXXX	1835,68	XXXpS/TAFF	10561,9
98	RFAPpS/TXXX	602,34	FARpS/TXXX	1708,49	XXXpS/TFAP	981,58	RFGpS/TXXX	2163,7	LRKpS/TXXX	935,91	RGLpS/TXXX	1829,53	FARpS/TXXX	10491,2
99	XXXpS/TGPL	597,125	LAApS/TXXX	1695,26	XXXpS/TVQF	980,87	XXXpS/TVAR	2149,13	FAQpS/TXXX	927,145	RLRpS/TXXX	1811,17	FRKpS/TXXX	10484,6
100	LAKpS/TXXX	585,635	FPRpS/TXXX	1676,88	XXXpS/TVQL	978,36	PGVpS/TXXX	2148,62	RVFpS/TXXX	919,92	XXXpS/TFAP	1795,31	PFKpS/TXXX	10459,8

Table S5: Top 100 sequences of seven Cy3 labeled 14-3-3 isoforms based on relative fluorescent (RF). Data were generated after re-sorting Table S3 based on ranking No.1 to No. 1000.

Table S6

NO.	ID	Peptide Sequence	Cy3 pin1 RF
1	H44	EAApS/TXXX	92,9
2	E31	EAEpS/TXXX	176,355
3	E43	EAFpS/TXXX	10,005
4	D44	EAGpS/TXXX	262,3
5	C32	EAKpS/TXXX	433,185
6	A43	EALpS/TXXX	171,485
7	H32	EAPpS/TXXX	41,11
8	D32	EAQpS/TXXX	257,635
9	A31	EARpS/TXXX	192,07
10	G32	EAVpS/TXXX	174,72
11	P38	EEApS/TXXX	41,265
12	M25	EEEpS/TXXX	244,15
13	M37	EEFpS/TXXX	0
14	L39	EEGpS/TXXX	261,09
15	K26	EEKpS/TXXX	103,28
16	I37	EELpS/TXXX	171,1
17	P26	EEPpS/TXXX	296,8
18	L26	EEQpS/TXXX	268,45
19	I25	EERpS/TXXX	268,105
20	M40	EFApS/TXXX	258,66
21	G26	EFEpS/TXXX	36,285
22	G38	EFFpS/TXXX	246,245
23	I40	EFGpS/TXXX	159,165
24	L29	EFKpS/TXXX	0
25	C38	EFLpS/TXXX	178,99
26	M28	FFPpS/TXXX	0
27	I28	EFQpS/TXXX	112,525
28	C26	EFRpS/TXXX	175,035
29	O26	EFVpS/TXXX	102,79
30	P29	EFVpS/TXXX	220,515
31	P35	EGApS/TXXX	360,965
32	G44	EGEpS/TXXX	43,445
33	M34	EGFpS/TXXX	167,785
34	L35	EGGpS/TXXX	74,55
35	L47	EGKpS/TXXX	290,11
36	I34	EGLpS/TXXX	233,035
37	M46	EGPpS/TXXX	408,405
38	I46	EGQpS/TXXX	173,195
39	C44	EGRpS/TXXX	169,695
40	P47	EGVpS/TXXX	217,6
41	N26	EKApS/TXXX	71,35
42	H47	EKEpS/TXXX	181,21
43	G35	EKFpS/TXXX	284,76
44	J26	EKGpS/TXXX	225,995
45	J38	EKKpS/TXXX	72,065
46	C35	EKLpS/TXXX	222,68
47	G47	EKPpS/TXXX	204,505
48	C47	EKQpS/TXXX	356,28
49	D47	EKRpS/TXXX	288,18
50	N38	EKVpS/TXXX	139,75
51	E28	ELApS/TXXX	264,31
52	P41	ELEpS/TXXX	498,06
53	O29	ELFpS/TXXX	229,52
54	A28	ELGpS/TXXX	274,445

Table S6

55	A40	ELKpS/TXXX	524,73
56	K29	ELLpS/TXXX	187,05
57	O41	ELPpS/TXXX	78,49
58	K41	ELQpS/TXXX	61,07
59	L42	ELRpS/TXXX	149,485
60	E40	ELVpS/TXXX	115,305
61	G41	EPApS/TXXX	181,23
62	H29	EPEpS/TXXX	211,97
63	H41	EPFpS/TXXX	342,99
64	C41	EPGpS/TXXX	309,62
65	I31	EPKpS/TXXX	109,24
66	D41	EPLpS/TXXX	0
67	G29	EPPpS/TXXX	399,335
68	C29	EPQpS/TXXX	345,14
69	D29	EPRpS/TXXX	199,285
70	M31	EPVpS/TXXX	305,97
71	O32	EQApS/TXXX	199,445
72	M43	EQEpS/TXXX	122,935
73	P32	EQFpS/TXXX	343,87
74	K32	EQGpS/TXXX	201,415
75	K44	EQKpS/TXXX	361,195
76	L32	EQLpS/TXXX	163,795
77	P44	EQPpS/TXXX	266,82
78	L44	EQQpS/TXXX	104,71
79	I43	EQRpS/TXXX	267,4
80	O44	EQVpS/TXXX	171,495
81	H26	ERApS/TXXX	224,185
82	O38	EREpS/TXXX	138,635
83	E25	ERFpS/TXXX	186,4
84	D26	ERGpS/TXXX	0
85	D38	ERKpS/TXXX	198,08
86	A25	ERLpS/TXXX	132,17
87	E37	ERPpS/TXXX	157,075
88	A37	ERQpS/TXXX	141,505
89	K38	ERRpS/TXXX	255,92
90	H38	ERVpS/TXXX	168,745
91	E46	EVApS/TXXX	246,025
92	O35	EVEpS/TXXX	366,935
93	O47	EVFpS/TXXX	313,47
94	A46	EVGpS/TXXX	258,76
95	D35	EVKpS/TXXX	242,61
96	K47	EVLpS/TXXX	387,735
97	E34	EVPpS/TXXX	179,69
98	A34	EVQpS/TXXX	127,445
99	K35	EVRpS/TXXX	173,36
100	H35	EVVpS/TXXX	73,2
101	O48	FAApS/TXXX	202,54
102	E33	FAEpS/TXXX	111,9
103	E45	FAFpS/TXXX	181,295
104	K48	FAGpS/TXXX	160,315
105	J36	FAKpS/TXXX	131,86
106	A45	FALpS/TXXX	332,235
107	O36	FAPpS/TXXX	262,68
108	K36	FAQpS/TXXX	244,005
109	A33	FARpS/TXXX	246,25
110	N36	FAVpS/TXXX	0

Table S6

111	G39	FEApS/TXXX	202,84
112	M27	FEEpS/TXXX	89,705
113	M39	FEFpS/TXXX	289,13
114	C39	FEGpS/TXXX	135,11
115	B27	FEKpS/TXXX	244,605
116	I39	FELpS/TXXX	16,615
117	G27	FEPpS/TXXX	370,43
118	C27	FEQpS/TXXX	122,44
119	I27	FERpS/TXXX	128,01
120	M42	FFApS/TXXX	213,315
121	N30	FFEpS/TXXX	249,47
122	N42	FFFpS/TXXX	198,255
123	I42	FFGpS/TXXX	235,965
124	C30	FFKpS/TXXX	488,295
125	J42	FFLpS/TXXX	183,53
126	M30	FFPpS/TXXX	55,91
127	I30	FFQpS/TXXX	110,52
128	J30	FFRpS/TXXX	143,355
129	F27	FFVpS/TXXX	0
130	G30	FFVpS/TXXX	196,785
131	G36	FGApS/TXXX	339,315
132	N48	FGEpS/TXXX	181,625
133	M36	FGFpS/TXXX	454,06
134	C36	FGGpS/TXXX	256,205
135	C48	FGKpS/TXXX	115,845
136	I36	FGLpS/TXXX	279,145
137	M48	FGPpS/TXXX	85,73
138	I48	FGQpS/TXXX	268,01
139	J48	FGRpS/TXXX	215,735
140	G48	FGVpS/TXXX	293,965
141	N49	FKApS/TXXX	370,23
142	P61	FKEpS/TXXX	613,295
143	O49	FKFpS/TXXX	241,79
144	J49	FKGpS/TXXX	946,43
145	J61	FKKpS/TXXX	617,015
146	K49	FKLpS/TXXX	991,235
147	O61	FKPpS/TXXX	354,07
148	K61	FKQpS/TXXX	1037,765
149	L62	FKRpS/TXXX	1401,115
150	N61	FKVpS/TXXX	372,45
151	E30	FLApS/TXXX	403,6
152	G42	FLEpS/TXXX	263,55
153	F30	FLFpS/TXXX	253,01
154	A30	FLGpS/TXXX	194,9
155	A42	FLKpS/TXXX	259,785
156	B30	FLLpS/TXXX	41,705
157	F42	FLPpS/TXXX	128,56
158	B42	FLQpS/TXXX	258,8
159	C42	FLRpS/TXXX	121,825
160	E42	FLVpS/TXXX	217,62
161	N45	FPApS/TXXX	108,79
162	O33	FPEpS/TXXX	139,995
163	O45	FPFpS/TXXX	139,95
164	J45	FPGpS/TXXX	318,56
165	I33	FPKpS/TXXX	0
166	K45	FPLpS/TXXX	51,36

Table S6

167	N33	FPPpS/TXXX	110,345
168	J33	FPQpS/TXXX	0
169	K33	FPRpS/TXXX	223,105
170	M33	FPVpS/TXXX	98,025
171	F33	FQApS/TXXX	385,62
172	M45	FQEpS/TXXX	309,215
173	G33	FQFpS/TXXX	110,31
174	B33	FQGpS/TXXX	173,905
175	B45	FQKpS/TXXX	103,595
176	C33	FQLpS/TXXX	150,16
177	G45	FQPpS/TXXX	257,11
178	C45	FQQpS/TXXX	280,47
179	I45	FQRpS/TXXX	156,96
180	F45	FQVpS/TXXX	194,745
181	O30	FRApS/TXXX	0
182	F39	FREpS/TXXX	88,965
183	E27	FRFpS/TXXX	137,42
184	K30	FRGpS/TXXX	470,095
185	K42	FRKpS/TXXX	184,085
186	A27	FRLpS/TXXX	147,76
187	E39	FRPpS/TXXX	59,745
188	A39	FRQpS/TXXX	164,855
189	B39	FRRpS/TXXX	61,555
190	O42	FRVpS/TXXX	64,795
191	E48	FVApS/TXXX	658,34
192	F36	FVEpS/TXXX	143,865
193	F48	FVFpS/TXXX	485,41
194	A48	FVGpS/TXXX	351,08
195	L49	FVKpS/TXXX	1675,695
196	B48	FVLpS/TXXX	281,935
197	E36	FVPpS/TXXX	238,195
198	A36	FVQpS/TXXX	346,605
199	B36	FVRpS/TXXX	178,45
200	P49	FVVpS/TXXX	219,955
201	O70	LAApS/TXXX	203,735
202	P58	LAEpS/TXXX	634,82
203	P70	LAFpS/TXXX	496,01
204	K70	LAGpS/TXXX	365,865
205	J58	LAKpS/TXXX	462,565
206	L70	LALpS/TXXX	433,965
207	O58	LAPpS/TXXX	212,22
208	K58	LAQpS/TXXX	449,81
209	L58	LARpS/TXXX	354,445
210	N58	LAVpS/TXXX	259,875
211	G61	LEApS/TXXX	848,235
212	H49	LEEpS/TXXX	413,22
213	H61	LEFpS/TXXX	173,805
214	C61	LEGpS/TXXX	1076,22
215	B49	LEKpS/TXXX	944,15
216	D61	LELpS/TXXX	1673,905
217	G49	LEPpS/TXXX	862,56
218	C49	LEQpS/TXXX	1372,535
219	D49	LERpS/TXXX	1109,4
220	H64	LFApS/TXXX	800,355
221	N52	LFEpS/TXXX	142,025
222	N64	LFFpS/TXXX	1626,88

Table S6

223	D64	LFGpS/TXXX	1115,92
224	C52	LFKpS/TXXX	169,81
225	J64	LFHpS/TXXX	0
226	H52	LFPpS/TXXX	69,08
227	D52	LFQpS/TXXX	46,375
228	J52	LFRpS/TXXX	159,04
229	F49	LFVpS/TXXX	115,215
230	G52	LFVpS/TXXX	255,915
231	G58	LGApS/TXXX	211,685
232	N70	LGEpS/TXXX	276,895
233	H58	LGFpS/TXXX	169,72
234	C58	LGGpS/TXXX	422,75
235	C70	L GKpS/TXXX	248,725
236	D58	LGLpS/TXXX	380,145
237	H70	LGPpS/TXXX	263,9
238	D70	LGQpS/TXXX	320,335
239	J70	LGRpS/TXXX	508,055
240	G70	LGVpS/TXXX	502,02
241	E49	LKApS/TXXX	1983,285
242	P62	LKEpS/TXXX	341,305
243	O50	LKFpS/TXXX	251,255
244	A49	LKGpS/TXXX	1642,565
245	A61	LKKpS/TXXX	919,635
246	K50	LKLpS/TXXX	873,055
247	O62	LKPpS/TXXX	266,63
248	K62	LKQpS/TXXX	653,74
249	L63	LKRpS/TXXX	474,28
250	E61	LKVpS/TXXX	1629,815
251	P55	LLApS/TXXX	45,92
252	G64	LLEpS/TXXX	186,525
253	F52	LLFpS/TXXX	457,58
254	L55	LLGpS/TXXX	194,9
255	L67	LLKpS/TXXX	291,16
256	B52	LLHpS/TXXX	75,185
257	F64	LLPpS/TXXX	97,735
258	B64	LLQpS/TXXX	180,4
259	C64	LLRpS/TXXX	190,88
260	P67	LLVpS/TXXX	213,03
261	N67	LPApS/TXXX	0
262	O55	LPEpS/TXXX	208,69
263	O67	LPFpS/TXXX	288,78
264	J67	LPGpS/TXXX	254,32
265	D55	LPKpS/TXXX	111,15
266	K67	LPLpS/TXXX	223,485
267	N55	LPPpS/TXXX	206,72
268	J55	LPQpS/TXXX	160,035
269	K55	LPRpS/TXXX	159,76
270	H55	LPVpS/TXXX	241,955
271	F55	LQApS/TXXX	124,745
272	H67	LQEpS/TXXX	127,295
273	G55	LQFpS/TXXX	118,205
274	B55	LQGpS/TXXX	195,105
275	B67	LQKpS/TXXX	166,715
276	C55	LQLpS/TXXX	351,48
277	G67	LQPpS/TXXX	193,02
278	C67	LQQpS/TXXX	216,565

Table S6

279	D67	LQRpS/TXXX	300,89
280	F67	LQVpS/TXXX	100,295
281	O52	LRApS/TXXX	622,695
282	F61	LREpS/TXXX	1305,2
283	P52	LRfpS/TXXX	550,135
284	K52	LRGpS/TXXX	154,75
285	K64	LRKpS/TXXX	33,025
286	L52	LRLpS/TXXX	0
287	P64	LRPpS/TXXX	608,555
288	L65	LRQpS/TXXX	185,695
289	B61	LRRpS/TXXX	1251,545
290	O64	LRVpS/TXXX	650,885
291	M61	LVApS/TXXX	125,545
292	F58	LVEpS/TXXX	233,37
293	F70	LVFpS/TXXX	328,84
294	I61	LVGpS/TXXX	436,8
295	L50	LVKpS/TXXX	833,85
296	B70	LVLpS/TXXX	389,105
297	M49	LVPpS/TXXX	496,545
298	I49	LVQpS/TXXX	818,375
299	B58	LVRpS/TXXX	414,4
300	P50	LVVpS/TXXX	58,65
301	O71	PAApS/TXXX	299,955
302	P59	PAEpS/TXXX	281,79
303	P71	PAFpS/TXXX	333,345
304	K71	PAGpS/TXXX	512,94
305	A58	PAKpS/TXXX	371,985
306	L71	PALpS/TXXX	459,985
307	O59	PAPpS/TXXX	262,165
308	K59	PAQpS/TXXX	359,095
309	L59	PARpS/TXXX	191,245
310	E58	PAVpS/TXXX	231,065
311	G62	PEApS/TXXX	978,785
312	H50	PEEpS/TXXX	1877,28
313	H62	PEFpS/TXXX	851,875
314	C62	PEGpS/TXXX	507,83
315	I52	PEKpS/TXXX	129,035
316	D62	PELpS/TXXX	226,545
317	G50	PEPpS/TXXX	1353,715
318	C50	PEQpS/TXXX	688,945
319	D50	PERpS/TXXX	897,09
320	H65	PFApS/TXXX	865,84
321	E52	PFEpS/TXXX	33,245
322	E64	PFFpS/TXXX	214,91
323	D65	PFGpS/TXXX	74,53
324	C53	PFKpS/TXXX	84,425
325	A64	PFLpS/TXXX	31,275
326	H53	PFPpS/TXXX	172,02
327	D53	PFQpS/TXXX	186,855
328	A52	PFRpS/TXXX	97,075
329	G53	PFVpS/TXXX	67,305
330	M52	PFVpS/TXXX	159,575
331	G59	PGApS/TXXX	359,44
332	E70	PGEpS/TXXX	248,215
333	H59	PGFpS/TXXX	341,88
334	C59	PGGpS/TXXX	478,835

Table S6

335	C71	PGKpS/TXXX	363,27
336	D59	PGLpS/TXXX	319,495
337	H71	PGPpS/TXXX	394,46
338	D71	PGQpS/TXXX	419,115
339	A70	PGRpS/TXXX	286,68
340	G71	PGVpS/TXXX	216,68
341	E53	PKApS/TXXX	63,03
342	P66	PKEpS/TXXX	167,47
343	F53	PKFpS/TXXX	211,77
344	A53	PKGpS/TXXX	40,985
345	A65	PKKpS/TXXX	71,13
346	B53	PKLpS/TXXX	68,04
347	F65	PKPpS/TXXX	134,73
348	B65	PKQpS/TXXX	191,505
349	L60	PKRpS/TXXX	89,82
350	E65	PKVpS/TXXX	82,045
351	P56	PLApS/TXXX	253,525
352	G65	PLEpS/TXXX	188,365
353	M55	PLFpS/TXXX	175
354	L56	PLGpS/TXXX	55,85
355	L68	PLKpS/TXXX	172,34
356	I55	PLLpS/TXXX	92,495
357	M67	PLPpS/TXXX	137,82
358	I67	PLQpS/TXXX	326,91
359	C65	PLRpS/TXXX	267,555
360	P68	PLVpS/TXXX	158,89
361	E67	PPApS/TXXX	132,66
362	O56	PPEpS/TXXX	190,485
363	O68	PPFpS/TXXX	98,15
364	A67	PPGpS/TXXX	248,52
365	D56	PPKpS/TXXX	197,89
366	K68	PPLpS/TXXX	77,1
367	E55	PPPpS/TXXX	171,43
368	A55	PPQpS/TXXX	260,86
369	K56	PPRpS/TXXX	211,81
370	H56	PPVpS/TXXX	246,91
371	M58	PQApS/TXXX	294,97
372	H68	PQEpS/TXXX	203,845
373	G56	PQFpS/TXXX	195,01
374	I58	PQGpS/TXXX	274,42
375	I70	PQKpS/TXXX	258,735
376	C56	PQLpS/TXXX	349,48
377	G68	PQPpS/TXXX	282,66
378	C68	PQQpS/TXXX	227,89
379	D68	PQRpS/TXXX	178,825
380	M70	PQVpS/TXXX	0
381	O53	PRApS/TXXX	1125,385
382	M64	PREpS/TXXX	658,805
383	P53	PRFpS/TXXX	1179,765
384	K53	PRGpS/TXXX	0
385	K65	PRKpS/TXXX	0
386	L53	PRLpS/TXXX	135,7
387	P65	PRPpS/TXXX	925,835
388	L66	PRQpS/TXXX	158,42
389	I64	PRRpS/TXXX	59,465
390	O65	PRVpS/TXXX	979,805

Table S6

391	M65	PVApS/TXXX	0
392	N53	PVEpS/TXXX	886,82
393	N65	PVFpS/TXXX	719,1
394	I65	PVGpS/TXXX	310
395	L54	PVKpS/TXXX	246,815
396	J65	PVLpS/TXXX	322,025
397	M53	PVPpS/TXXX	311,22
398	I53	PVQpS/TXXX	80,075
399	J53	PVRpS/TXXX	237,485
400	P54	PVVpS/TXXX	308,225
401	H45	RAApS/TXXX	110,8
402	P39	RAEpS/TXXX	432,53
403	M41	RAFpS/TXXX	167,5
404	P36	RAGpS/TXXX	336,585
405	N27	RAKpS/TXXX	10,615
406	E29	RALpS/TXXX	167,74
407	N44	RAPpS/TXXX	0
408	F32	RAQpS/TXXX	246,99
409	H27	RARpS/TXXX	114,595
410	E47	RAVpS/TXXX	254,99
411	E32	REApS/TXXX	218,66
412	M26	REEpS/TXXX	134,12
413	N29	REFpS/TXXX	160,63
414	N47	REGpS/TXXX	170,22
415	H48	REKpS/TXXX	230,84
416	P42	RELpS/TXXX	112,23
417	H30	REPpS/TXXX	119,515
418	M44	REQpS/TXXX	355,57
419	F38	RERpS/TXXX	71,07
420	E44	RFApS/TXXX	228,085
421	M38	RFEpS/TXXX	20,82
422	N41	RFFpS/TXXX	322,025
423	M35	RFGpS/TXXX	66,515
424	O27	RFKpS/TXXX	126,7
425	F29	RFLpS/TXXX	227,64
426	H42	RFPpS/TXXX	169,665
427	P33	RFQpS/TXXX	59,77
428	E26	RFRpS/TXXX	169,455
429	F35	RFVpS/TXXX	4,875
430	F47	RFVpS/TXXX	0
431	D45	RGApS/TXXX	219,7
432	L40	RGEpS/TXXX	404,14
433	I41	RGFpS/TXXX	185,215
434	L37	RGGpS/TXXX	259,25
435	J27	RGKpS/TXXX	432,845
436	A29	RGLpS/TXXX	418,73
437	J44	RGPpS/TXXX	284,31
438	B32	RGQpS/TXXX	410,435
439	D27	RGRpS/TXXX	294,775
440	A47	RGVpS/TXXX	153,665
441	J35	RKApS/TXXX	205,115
442	B26	RKEpS/TXXX	296,015
443	L30	RKFpS/TXXX	324,78
444	L48	RKGpS/TXXX	43,48
445	J39	RKKpS/TXXX	119,355
446	A41	RKLpS/TXXX	56,72

Table S6

447	I32	RKPpS/TXXX	147,25
448	B44	RKQpS/TXXX	242,2
449	D39	RKRpS/TXXX	204,31
450	D36	RKVpS/TXXX	213,2
451	A44	RLApS/TXXX	142,59
452	I38	RLEpS/TXXX	181,835
453	J41	RLFpS/TXXX	0
454	I35	RLGpS/TXXX	300,075
455	K27	RLKpS/TXXX	329,285
456	B29	RLLpS/TXXX	61,48
457	D42	RLPpS/TXXX	285,695
458	L33	RLQpS/TXXX	300,255
459	A26	RLRpS/TXXX	205,645
460	B47	RLVpS/TXXX	0
461	H33	RPApS/TXXX	270,655
462	P27	RPEpS/TXXX	288,38
463	M29	RPFpS/TXXX	245,47
464	M47	RPGpS/TXXX	419,75
465	O39	RPKpS/TXXX	145,12
466	F41	RPLpS/TXXX	372,245
467	N32	RPPpS/TXXX	163,215
468	P45	RPQpS/TXXX	128,935
469	E38	RPRpS/TXXX	85,985
470	E35	RPVpS/TXXX	207,015
471	D33	RQApS/TXXX	0
472	L27	RQEpS/TXXX	100,055
473	I29	RQFpS/TXXX	273,28
474	I47	RQGpS/TXXX	280,13
475	K39	RQKpS/TXXX	259,725
476	B41	RQLpS/TXXX	203,875
477	J32	RQPpS/TXXX	185,905
478	L45	RQQpS/TXXX	228,02
479	A38	RQRpS/TXXX	69,27
480	A35	RQVpS/TXXX	74,305
481	A32	RRApS/TXXX	242,095
482	I26	RREpS/TXXX	132,185
483	J29	RRFpS/TXXX	60,495
484	J47	RRGpS/TXXX	88,785
485	D48	RRKpS/TXXX	176,415
486	L36	RRLpS/TXXX	0
487	D30	RRPpS/TXXX	215,705
488	I44	RRQpS/TXXX	18,08
489	B38	RRRpS/TXXX	184,52
490	B35	RRVpS/TXXX	232,77
491	N35	RVApS/TXXX	210,58
492	F26	RVEpS/TXXX	188,91
493	P30	RVFpS/TXXX	479,935
494	P48	RVGpS/TXXX	0
495	N39	RVKpS/TXXX	153,265
496	E41	RVLpS/TXXX	148,705
497	M32	RVPpS/TXXX	251,61
498	F44	RVQpS/TXXX	258,465
499	H39	RVRpS/TXXX	359,535
500	H36	RVVpS/TXXX	279,935
501	F18	XXXpS/TAAE	0
502	E6	XXXpS/TA AF	205,57

Table S6

503	A6	XXXpS/T AAL	0
504	E18	XXXpS/T AAP	20,22
505	B18	XXXpS/T AAR	0
506	G3	XXXpS/T AEE	94,15
507	G15	XXXpS/T AEF	0
508	C15	XXXpS/T AEL	0
509	F3	XXXpS/T AEP	146,8
510	C3	XXXpS/T AER	0
511	E15	XXXpS/T AFE	0
512	O6	XXXpS/T AFF	174,78
513	K6	XXXpS/T AFL	118,105
514	O18	XXXpS/T AFP	0
515	A15	XXXpS/T AFR	68,66
516	A18	XXXpS/T AGE	0
517	K9	XXXpS/T AGF	78,085
518	O21	XXXpS/T AGL	7,075
519	K21	XXXpS/T AGP	0
520	O9	XXXpS/T AGR	36,4
521	I9	XXXpS/T AKE	92,095
522	I21	XXXpS/T AKF	82,77
523	G9	XXXpS/T AKL	220,43
524	C9	XXXpS/T AKP	52,84
525	M21	XXXpS/T AKR	9,165
526	K18	XXXpS/T ALE	21,1
527	J6	XXXpS/T ALF	118,45
528	N18	XXXpS/T ALL	63,2
529	J18	XXXpS/T ALP	111,09
530	N6	XXXpS/T ALR	55,115
531	M6	XXXpS/T APE	0
532	M18	XXXpS/T APF	139,13
533	I18	XXXpS/T APL	105,92
534	G6	XXXpS/T APP	75,995
535	I6	XXXpS/T APR	0
536	C6	XXXpS/T AQE	0
537	C18	XXXpS/T AQF	92,2
538	F6	XXXpS/T AQL	0
539	B6	XXXpS/T AQP	0
540	G18	XXXpS/T AQR	0
541	B3	XXXpS/T ARE	0
542	B15	XXXpS/T ARF	10,63
543	E3	XXXpS/T ARL	108,66
544	A3	XXXpS/T ARP	0
545	F15	XXXpS/T ARR	0
546	N9	XXXpS/T AVE	74,185
547	N21	XXXpS/T AVF	18,745
548	J21	XXXpS/T AVL	65,705
549	M9	XXXpS/T AVP	96,245
550	J9	XXXpS/T AVR	0
551	O16	XXXpS/T EAE	0
552	N4	XXXpS/T EAF	172,025
553	J4	XXXpS/T EAL	0
554	N16	XXXpS/T EAP	0
555	K16	XXXpS/T EAR	31,835
556	P1	XXXpS/T EEE	63,315
557	P13	XXXpS/T EEF	0
558	L13	XXXpS/T EEL	48,08

Table S6

559	O1	XXXpS/TEEP	0
560	L1	XXXpS/TEER	0
561	N13	XXXpS/TEFE	0
562	H1	XXXpS/TEFF	0
563	D1	XXXpS/TEFL	94,605
564	H13	XXXpS/TEFP	0
565	J13	XXXpS/TEFR	34,52
566	J16	XXXpS/TEGE	0
567	D4	XXXpS/TEGF	28,99
568	H16	XXXpS/TEGL	85,965
569	D16	XXXpS/TEGP	0
570	H4	XXXpS/TEGR	48,255
571	B4	XXXpS/TEKE	0
572	B16	XXXpS/TEKF	19,665
573	P7	XXXpS/TEKL	19,455
574	L7	XXXpS/TEKP	0
575	F16	XXXpS/TEKR	0
576	D13	XXXpS/TELE	0
577	C1	XXXpS/TELF	0
578	G13	XXXpS/TELL	26,415
579	C13	XXXpS/TELP	14,855
580	G1	XXXpS/TELR	0
581	F1	XXXpS/TEPE	0
582	F13	XXXpS/TEPF	0
583	B13	XXXpS/TEPL	0
584	P4	XXXpS/TEPP	70,515
585	B1	XXXpS/TEPR	0
586	L4	XXXpS/TEQE	0
587	L16	XXXpS/TEQF	0
588	O4	XXXpS/TEQL	79,52
589	K4	XXXpS/TEQP	0
590	P16	XXXpS/TEQR	348,06
591	K1	XXXpS/TERE	0
592	K13	XXXpS/TERF	0
593	N1	XXXpS/TERL	0
594	J1	XXXpS/TERP	80,84
595	O13	XXXpS/TERR	0
596	G4	XXXpS/TEVE	0
597	G16	XXXpS/TEVF	99,47
598	C16	XXXpS/TEVL	0
599	F4	XXXpS/TEVP	25,035
600	C4	XXXpS/TEVR	37,05
601	O17	XXXpS/TFAE	67,62
602	E4	XXXpS/TFAF	0
603	A4	XXXpS/TFAL	33,53
604	E16	XXXpS/TFAP	150,255
605	K17	XXXpS/TFAR	159,62
606	P2	XXXpS/TFEE	77,64
607	P14	XXXpS/TFEF	55,645
608	L14	XXXpS/TFEL	0
609	O2	XXXpS/TFEP	320,095
610	L2	XXXpS/TFER	0
611	E13	XXXpS/TFFE	0
612	H2	XXXpS/TFFF	61,97
613	D2	XXXpS/TFFL	0
614	H14	XXXpS/TFFP	192,99

Table S6

615	A13	XXXpS/TFFR	135,695
616	A16	XXXpS/TFGE	0
617	D5	XXXpS/TFGF	0
618	H17	XXXpS/TFGL	179,285
619	D17	XXXpS/TFGP	108,8
620	H5	XXXpS/TFGR	150,075
621	I7	XXXpS/TFKE	116,82
622	I19	XXXpS/TFKF	49,445
623	P8	XXXpS/TFKL	193,87
624	L8	XXXpS/TFKP	21,495
625	M19	XXXpS/TFKR	0
626	D14	XXXpS/TFLE	0
627	C2	XXXpS/TLF	138,38
628	G14	XXXpS/TFLL	31,23
629	C14	XXXpS/TFLP	95,47
630	G2	XXXpS/TFLR	249,335
631	M4	XXXpS/TFPE	46,785
632	M16	XXXpS/TFPF	113,55
633	I16	XXXpS/TFPL	374,73
634	P5	XXXpS/TFPP	103,01
635	I4	XXXpS/TFPR	124,445
636	L5	XXXpS/TFQE	49,285
637	L17	XXXpS/TFQF	0
638	O5	XXXpS/TFQL	253,6
639	K5	XXXpS/TFQP	195,14
640	P17	XXXpS/TFQR	0
641	K2	XXXpS/TFRE	0
642	K14	XXXpS/TFRF	338,295
643	E1	XXXpS/TFRL	114,31
644	A1	XXXpS/TFRP	0
645	O14	XXXpS/TFRR	34,085
646	G5	XXXpS/TFVE	0
647	G17	XXXpS/TFVF	222,245
648	C17	XXXpS/TFVL	109,785
649	M7	XXXpS/TFVP	155,97
650	C5	XXXpS/TFVR	44,9
651	E12	XXXpS/TGAE	0
652	E24	XXXpS/TGAF	168,56
653	A24	XXXpS/TGAL	0
654	P25	XXXpS/TGAP	24,72
655	A12	XXXpS/TGAR	0
656	G21	XXXpS/TGEE	13,215
657	F9	XXXpS/TGEF	120,655
658	B9	XXXpS/TGEL	0
659	F21	XXXpS/TGEP	57,015
660	C21	XXXpS/TGER	35,905
661	O12	XXXpS/TGFE	0
662	O24	XXXpS/TGFF	159,215
663	K24	XXXpS/TGFL	211,195
664	N12	XXXpS/TGFP	0
665	K12	XXXpS/TGFR	51,415
666	L25	XXXpS/TGGE	0
667	L38	XXXpS/TGGF	0
668	O25	XXXpS/TGGL	0
669	K25	XXXpS/TGGP	0
670	P37	XXXpS/TGGR	0

Table S6

671	J37	XXXpS/TGKE	44,745
672	D25	XXXpS/TGKF	42,07
673	H37	XXXpS/TGKL	31,295
674	D37	XXXpS/TGKP	21,485
675	H25	XXXpS/TGKR	0
676	J12	XXXpS/TGLE	0
677	J24	XXXpS/TGLF	269,75
678	M12	XXXpS/TGLL	13,795
679	I12	XXXpS/TGLP	0
680	N24	XXXpS/TGLR	117,4
681	M24	XXXpS/TGPE	0
682	G12	XXXpS/TGPF	53,875
683	C12	XXXpS/TGPL	0
684	G24	XXXpS/TGPP	78,02
685	I24	XXXpS/TGPR	0
686	C24	XXXpS/TGQE	6,96
687	B12	XXXpS/TGQF	26,355
688	F24	XXXpS/TGQL	0
689	B24	XXXpS/TGQP	0
690	F12	XXXpS/TGQR	73,105
691	B21	XXXpS/TGRE	0
692	A9	XXXpS/TGRF	0
693	E21	XXXpS/TGRL	123,28
694	A21	XXXpS/TGRP	0
695	E9	XXXpS/TGRR	0
696	O37	XXXpS/TGVE	0
697	N25	XXXpS/TGVF	282,53
698	J25	XXXpS/TGVL	235,62
699	N37	XXXpS/TGVP	17,5
700	K37	XXXpS/TGVR	107,11
701	N50	XXXpS/TKAE	0
702	N62	XXXpS/TKAF	31,625
703	J62	XXXpS/TKAL	140,11
704	M50	XXXpS/TKAP	304,06
705	J50	XXXpS/TKAR	0
706	G43	XXXpS/TKEE	107,635
707	F31	XXXpS/TKEF	112,3
708	B31	XXXpS/TKEL	130,13
709	F43	XXXpS/TKEP	283,185
710	C43	XXXpS/TKER	19,695
711	O34	XXXpS/TKFE	96,99
712	O46	XXXpS/TKFF	186,585
713	K46	XXXpS/TKFL	182,235
714	N34	XXXpS/TKFP	0,16
715	K34	XXXpS/TKFR	96,25
716	I50	XXXpS/TKGE	23,36
717	I62	XXXpS/TKGF	237,735
718	P51	XXXpS/TKGL	83,035
719	L51	XXXpS/TKGP	0
720	M62	XXXpS/TKGR	0
721	B62	XXXpS/TKKE	10,315
722	A50	XXXpS/TKKF	0
723	E62	XXXpS/TKKL	282,845
724	A62	XXXpS/TKKP	65,735
725	E50	XXXpS/TKKR	109,25
726	J34	XXXpS/TKLE	17,785

Table S6

727	J46	XXXpS/TKLF	258,405
728	H34	XXXpS/TKLL	210,965
729	D34	XXXpS/TKLP	35,215
730	N46	XXXpS/TKLR	130,47
731	H46	XXXpS/TKPE	67,6
732	G34	XXXpS/TKPF	216,935
733	C34	XXXpS/TKPL	69,7
734	G46	XXXpS/TKPP	163,47
735	D46	XXXpS/TKPR	134,31
736	C46	XXXpS/TKQE	3,665
737	B34	XXXpS/TKQF	112,68
738	F46	XXXpS/TKQL	254,14
739	B46	XXXpS/TKQP	52,54
740	F34	XXXpS/TKQR	104,99
741	B43	XXXpS/TKRE	109,725
742	L34	XXXpS/TKRF	23,905
743	P46	XXXpS/TKRL	17,74
744	L46	XXXpS/TKRP	0
745	P34	XXXpS/TKRR	0
746	P63	XXXpS/TKVE	23,195
747	F50	XXXpS/TKVF	268,73
748	B50	XXXpS/TKVL	94,005
749	F62	XXXpS/TKVP	260,435
750	L64	XXXpS/TKVR	144,775
751	E10	XXXpS/LAE	69,955
752	E22	XXXpS/LAF	463,295
753	A22	XXXpS/LAL	0
754	H11	XXXpS/LAP	91,79
755	A10	XXXpS/LAR	346,545
756	P20	XXXpS/LEE	38,91
757	O8	XXXpS/LEF	329,935
758	K8	XXXpS/LEL	129,935
759	O20	XXXpS/LEP	101,61
760	L20	XXXpS/LER	60,58
761	H8	XXXpS/LFE	0
762	H20	XXXpS/LFF	335,41
763	D20	XXXpS/LFL	138,18
764	G8	XXXpS/LFP	88,195
765	D8	XXXpS/LFR	92,61
766	D11	XXXpS/LGE	0
767	D23	XXXpS/LGF	191,305
768	G11	XXXpS/LGL	220,23
769	C11	XXXpS/LGP	101,255
770	H23	XXXpS/LGR	204,07
771	J14	XXXpS/LKE	31,21
772	I2	XXXpS/LKF	134,76
773	M14	XXXpS/LKL	96,025
774	I14	XXXpS/LKP	54,505
775	M2	XXXpS/LKR	29,69
776	C8	XXXpS/LLE	72,68
777	C20	XXXpS/LLF	206,28
778	M10	XXXpS/LLL	209,535
779	I10	XXXpS/LLP	106,205
780	G20	XXXpS/LLR	508,34
781	M22	XXXpS/LPE	0
782	P11	XXXpS/LPF	108,465

Table S6

783	L11	XXXpS/TLPL	28,45
784	P23	XXXpS/TLPP	0
785	I22	XXXpS/TLPR	0
786	L23	XXXpS/TLQE	131,935
787	K11	XXXpS/TLQF	196,605
788	O23	XXXpS/TLQL	54,31
789	K23	XXXpS/TLQP	201,08
790	O11	XXXpS/TLQR	3,265
791	K20	XXXpS/TLRE	146,015
792	A7	XXXpS/TLRF	0
793	E19	XXXpS/TLRL	143,965
794	A19	XXXpS/TLRP	108,76
795	E7	XXXpS/TLRR	189,315
796	G23	XXXpS/TLVE	222,45
797	N2	XXXpS/TLVF	129,145
798	J2	XXXpS/TLVL	0
799	N14	XXXpS/TLVP	118,01
800	C23	XXXpS/TLVR	116,63
801	F17	XXXpS/TPAE	1101,545
802	E5	XXXpS/TPAF	1492,565
803	A5	XXXpS/TPAL	400,135
804	E17	XXXpS/TPAP	769,635
805	B17	XXXpS/TPAR	357,83
806	P3	XXXpS/TPEE	1525,695
807	P15	XXXpS/TPEF	1251,115
808	L15	XXXpS/TPEL	887,765
809	F2	XXXpS/TPEP	796,43
810	L3	XXXpS/TPER	841,235
811	E14	XXXpS/TPFE	286,8
812	H3	XXXpS/TPFF	683,85
813	D3	XXXpS/TPFL	712,56
814	H15	XXXpS/TPFP	324,28
815	A14	XXXpS/TPFR	23,805
816	A17	XXXpS/TPGE	458,555
817	D6	XXXpS/TPGF	472,695
818	H18	XXXpS/TPGL	76,545
819	D18	XXXpS/TPGP	500,885
820	H6	XXXpS/TPGR	747,09
821	I8	XXXpS/TPKE	829,805
822	I20	XXXpS/TPKF	736,82
823	P9	XXXpS/TPKL	1029,765
824	L9	XXXpS/TPKP	569,1
825	M20	XXXpS/TPKR	508,805
826	D15	XXXpS/TPLE	698,235
827	J5	XXXpS/PLF	1203,715
828	N17	XXXpS/TPLL	1155,2
829	J17	XXXpS/TPLP	828,785
830	N5	XXXpS/TPLR	650,355
831	M5	XXXpS/TPPE	1833,285
832	M17	XXXpS/TPPF	1479,815
833	I17	XXXpS/TPPL	1523,905
834	P6	XXXpS/TPPP	1727,28
835	I5	XXXpS/TPPR	959,4
836	L6	XXXpS/TPQE	1222,535
837	L118	XXXpS/TPQF	926,22
838	F5	XXXpS/TPQL	794,15

Table S6

839	B5	XXXpS/TPQP	538,945
840	P18	XXXpS/TPQR	701,875
841	B2	XXXpS/TPRE	723,055
842	B14	XXXpS/TPRF	503,74
843	E2	XXXpS/TPRL	668,375
844	A2	XXXpS/TPRP	263,22
845	F14	XXXpS/TPRR	467,015
846	N8	XXXpS/TPVE	1476,88
847	N20	XXXpS/TPVF	965,92
848	J20	XXXpS/TPVL	975,385
849	M8	XXXpS/TPVP	715,84
850	J8	XXXpS/TPVR	775,835
851	E11	XXXpS/TQAE	0
852	E23	XXXpS/TQAF	40,88
853	A23	XXXpS/TQAL	0
854	H12	XXXpS/TQAP	0
855	A11	XXXpS/TQAR	0
856	P21	XXXpS/TQEE	0
857	F8	XXXpS/TQEF	0
858	B8	XXXpS/TQEL	96,815
859	F20	XXXpS/TQEP	0
860	L21	XXXpS/TQER	8,42
861	H9	XXXpS/TQFE	0
862	H21	XXXpS/TQFF	160
863	D21	XXXpS/TQFL	36,525
864	N11	XXXpS/TQFP	307,58
865	D9	XXXpS/TQFR	105,915
866	D12	XXXpS/TQGE	0
867	D24	XXXpS/TQGF	117,555
868	O3	XXXpS/TQGL	161,22
869	K3	XXXpS/TQGP	4,75
870	H24	XXXpS/TQGR	30,4
871	J15	XXXpS/TQKE	0
872	I3	XXXpS/TQKF	0
873	M15	XXXpS/TQKL	35,695
874	I15	XXXpS/TQKP	0
875	M3	XXXpS/TQKR	0
876	J11	XXXpS/TQLE	9,575
877	J23	XXXpS/TQLF	38,365
878	M11	XXXpS/TQLL	64,91
879	I11	XXXpS/TQLP	61,77
880	N23	XXXpS/TQLR	0
881	M23	XXXpS/TQPE	0
882	P12	XXXpS/TQPF	36,855
883	L12	XXXpS/TQPL	0
884	P24	XXXpS/TQPP	0
885	I23	XXXpS/TQPR	0
886	L24	XXXpS/TQQE	0
887	B11	XXXpS/TQQF	0
888	F23	XXXpS/TQQL	19,81
889	B23	XXXpS/TQQP	22,02
890	F11	XXXpS/TQQR	9,04
891	B20	XXXpS/TQRE	0
892	A8	XXXpS/TQRF	0
893	E20	XXXpS/TQRL	172,025
894	A20	XXXpS/TQRP	0

Table S6

895	E8	XXXpS/TQRR	87,485
896	O15	XXXpS/TQVE	0
897	N3	XXXpS/TQVF	158,225
898	J3	XXXpS/TQVL	0
899	N15	XXXpS/TQVP	17,47
900	K15	XXXpS/TQVR	0
901	N10	XXXpS/TRAE	0
902	N22	XXXpS/TRAF	43,02
903	J22	XXXpS/TRAL	53,845
904	H10	XXXpS/TRAP	45,01
905	J10	XXXpS/TRAR	96,91
906	P19	XXXpS/TREE	0
907	O7	XXXpS/TREF	63,03
908	K7	XXXpS/TREL	25
909	O19	XXXpS/TREP	58,69
910	L19	XXXpS/TRER	0
911	H7	XXXpS/TRFE	40,485
912	H19	XXXpS/TRFF	0
913	D19	XXXpS/TRFL	104,32
914	G7	XXXpS/TRFP	44,9
915	D7	XXXpS/TRFR	10,035
916	D10	XXXpS/TRGE	45,105
917	D22	XXXpS/TRGF	16,715
918	G10	XXXpS/TRGL	0
919	C10	XXXpS/TRGP	110,86
920	H22	XXXpS/TRGR	132,66
921	B22	XXXpS/TRKE	28,825
922	I1	XXXpS/TRKF	0
923	M13	XXXpS/TRKL	41,505
924	I13	XXXpS/TRKP	0
925	M1	XXXpS/TRKR	0
926	C7	XXXpS/TRLE	0
927	C19	XXXpS/TRLF	176,91
928	F7	XXXpS/TRLL	9,76
929	B7	XXXpS/TRLP	0
930	G19	XXXpS/TRLR	141,16
931	F19	XXXpS/TRPE	73,485
932	P10	XXXpS/TRPF	61,81
933	L10	XXXpS/TRPL	0
934	P22	XXXpS/TRPP	0
935	B19	XXXpS/TRPR	22,34
936	L22	XXXpS/TRQE	0
937	K10	XXXpS/TRQF	21,43
938	O22	XXXpS/TRQL	0
939	K22	XXXpS/TRQP	0
940	O10	XXXpS/TRQR	91,955
941	K19	XXXpS/TRRE	0
942	J7	XXXpS/TRRF	103,525
943	N19	XXXpS/TRRL	56,72
944	J19	XXXpS/TRRP	8,89
945	N7	XXXpS/TRRR	138,78
946	G22	XXXpS/TRVE	150,89
947	F10	XXXpS/TRVF	201,48
948	B10	XXXpS/TRVL	47,89
949	F22	XXXpS/TRVP	66,565
950	C22	XXXpS/TRVR	98,52

Table S6

951	F40	XXXpS/TVAE	362,94
952	P31	XXXpS/TVAF	81,065
953	L31	XXXpS/TVAl	230,145
954	P43	XXXpS/TVAP	98,215
955	B40	XXXpS/TVAR	178,84
956	G25	XXXpS/TVEE	199,48
957	G37	XXXpS/TVeF	77,89
958	C37	XXXpS/TVeL	53,735
959	F25	XXXpS/TVeP	484,82
960	C25	XXXpS/TVeR	62,22
961	P40	XXXpS/TVFe	0
962	O28	XXXpS/TVFF	131,79
963	K28	XXXpS/TVFL	299,81
964	O40	XXXpS/TVFP	183,345
965	L41	XXXpS/TVFR	283,965
966	L43	XXXpS/TVGE	170,335
967	K31	XXXpS/TVGF	272,75
968	O43	XXXpS/TVGL	244,46
969	K43	XXXpS/TVGP	98,725
970	O31	XXXpS/TVGR	191,88
971	D31	XXXpS/TVKE	269,115
972	D43	XXXpS/TVKF	328,835
973	G31	XXXpS/TVKL	169,495
974	C31	XXXpS/TVKP	213,27
975	H43	XXXpS/TVKR	136,68
976	K40	XXXpS/TVLE	215,865
977	J28	XXXpS/TVLF	312,565
978	N40	XXXpS/TVLL	149,955
979	J40	XXXpS/TVLP	358,055
980	N28	XXXpS/TVLR	112,165
981	H28	XXXpS/TVPE	124,42
982	H40	XXXpS/TVPF	108,735
983	D40	XXXpS/TVPL	113,9
984	G28	XXXpS/TVPP	41,245
985	D28	XXXpS/TVPR	19,72
986	C28	XXXpS/TVQE	61,685
987	C40	XXXpS/TVQF	352,02
988	F28	XXXpS/TVQL	209,095
989	B28	XXXpS/TVQP	83,37
990	G40	XXXpS/TVQR	309,985
991	B25	XXXpS/TVRE	109,875
992	B37	XXXpS/TVRF	126,895
993	P28	XXXpS/TVRL	144,97
994	L28	XXXpS/TVRP	204,445
995	F37	XXXpS/TVRR	346,01
996	N31	XXXpS/TVVE	209,44
997	N43	XXXpS/TVVF	66,68
998	J43	XXXpS/TVVL	239,105
999	H31	XXXpS/TVVP	221,985
1000	J31	XXXpS/TVVR	264,4

Table S6: Binding potency of Cy3 labeled Pin1 against 1000-member library. Values indicate binding potency which are reflected by RF