

# Neuroscience

## Research Products



BioLegend is ISO 9001:2008 and ISO 13485:2003 Certified



Toll-Free Tel: (US & Canada): 1.877.BIOLEGEND (246.5343)

Tel: 858.768.5800

[biolegend.com](http://biolegend.com)

02-0010-01

World-Class Quality | Superior Customer Support | Outstanding Value

## Company Profile

BioLegend develops world-class, cutting-edge antibodies and reagents for biomedical research, manufactured in our state-of-the-art facility in San Diego, CA. Our mission is to accelerate research and discovery by providing the highest quality products at an outstanding value, along with superior customer service and technical support.

Our product expertise covers a diverse set of research areas including Immunology, Neuroscience, Cancer, Stem cells, and Cell Biology. BioLegend's reagents are supported by superior customer service and a quality management system that is certified for ISO 9001:2008 and ISO 13485:2003. Our aggressive product development program, through technology licensing, collaborations, and internal hybridoma development, produces strategic reagents for use in a variety of applications including:

- Flow cytometry and mass cytometry
- ELISA and ELISPOT
- Immunoprecipitation and ChIP
- Western blotting
- Immunofluorescence microscopy
- Immunohistochemistry
- *In vitro* and *in vivo* functional assays
- Quantitative Multiplexing

BioLegend offers the broadest selection of fluorochrome conjugates for multi-color flow cytometry. With an experienced biochemistry team, BioLegend is well positioned to offer a wide range of custom conjugation services to meet our customers' specific needs.

Our commitment to the research community is reflected in generous sponsorships of societies and meetings world-wide, our monthly travel award for junior investigators, and excellent bulk pricing. With iPhone/iPad apps, web tools, beautifully detailed posters, and new

reagents, we look forward to bringing more creative innovation to make your research legendary.

Incorporated in June 2002, BioLegend is located in San Diego, in the midst of one of the nation's largest and fastest growing biotechnology clusters.

### Quality Management System

BioLegend in San Diego, CA operates under an ISO 9001:2008 and ISO 13485:2003 certified quality management system. This certifies an effective quality management system, based on documentation and continuous improvement, that meets international standards for medical device and reagent manufacturing.

### USA, San Diego Headquarters

[biolegend.com](http://biolegend.com)

### Japan

[biolegend.com/jp](http://biolegend.com/jp)

### Germany

[biolegend.com/de](http://biolegend.com/de)

### United Kingdom

[biolegend.com/uk](http://biolegend.com/uk)

### BioLegend European Distribution Center

Phone: +44(0) 20 3475 3880

Fax: +44(0) 20 3318 3271



Unlocking the biology of the brain is a research imperative that has garnered much attention from public and private entities in recent years. From the National Football League to the U.S. Department of Defense, traumatic brain injury is being heavily investigated. In addition, the BRAIN Initiative and EU Initiative ([humanbrainproject.eu](http://humanbrainproject.eu)) are focused on innovative research and technology that increases our understanding of the brain. Neurodegenerative diseases already constitute a public health and economic crisis, and as the population ages, the urgent need for better treatments for these diseases is intensified.

With the acquisition of the Covance antibody product portfolio, BioLegend signaled its commitment to enabling legendary discovery within the neuroscience research community. BioLegend is making further investments in the portfolio, becoming a leading provider of reagents known for quality and innovation, and helping scientists advance the understanding of brain biology, interrogate their pathways, and identify potential biomarkers that may improve the success of clinical programs for neurodegenerative diseases.

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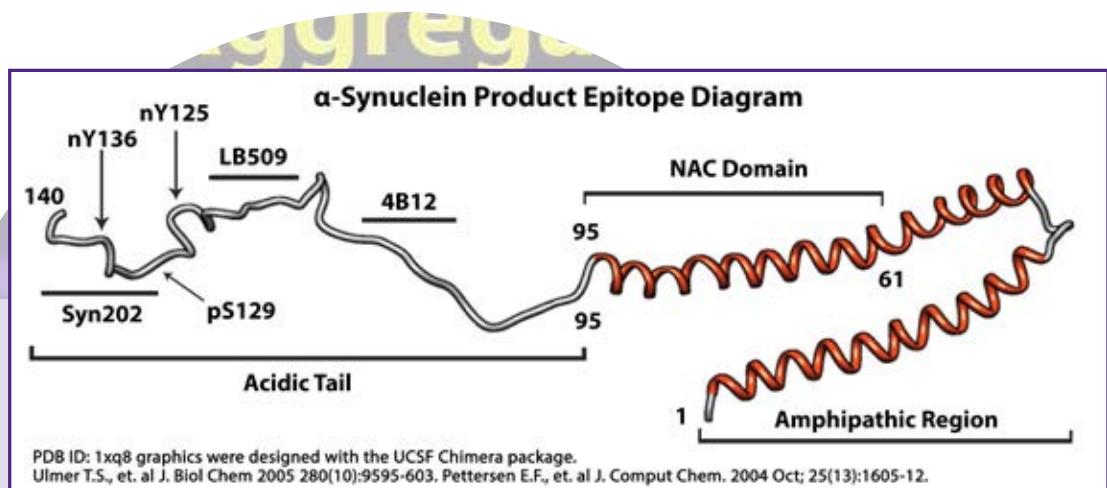
Learn more at: [biolegend.com/neuroscience](http://biolegend.com/neuroscience)

# Protein Misfolding & Aggregation

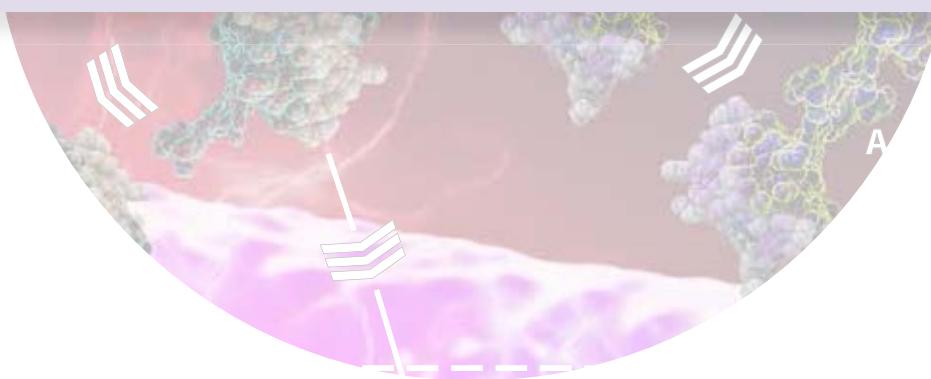
Protein aggregation is a hallmark of neurodegenerative disease pathology (e.g. beta-amyloid plaques in Alzheimer's disease, Lewy bodies in Parkinson's disease). Post-translational modification of key proteins is known to be a critical factor in the pathways that regulate formation, deposition and propagation of these aggregates. BioLegend offers a portfolio of products that set the standard for quality, allowing researchers to detect native and modified forms of key proteins in a wide range of applications.

## $\alpha$ -Synuclein

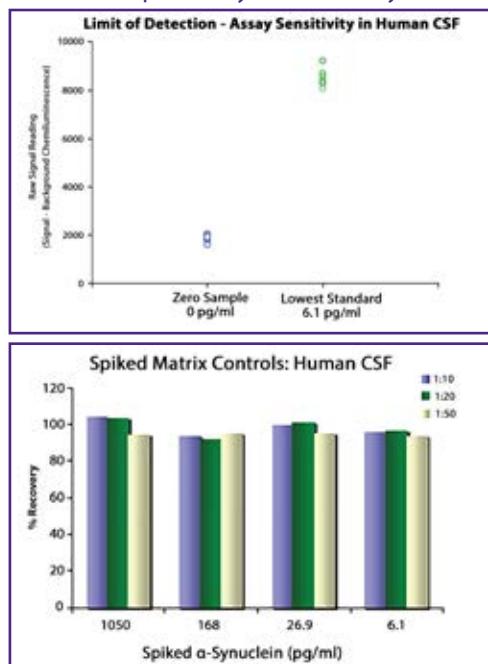
$\alpha$ -synuclein ( $\alpha$ -synuclein) is a small 140 amino acid (aa) protein that is abundantly expressed in the brain.  $\alpha$ -synuclein is mainly localized at the pre-synaptic terminals, where it is thought to play a role in regulating dopamine release by maintaining a supply of synaptic vesicles in the pre-synapse. Under normal conditions,  $\alpha$ -synuclein exists as a soluble protein, possibly in the form of a tetramer. Genetic mutations or toxic environmental factors may lead to abnormal aggregation of  $\alpha$ -synuclein and formation of intracellular inclusions termed Lewy bodies (LBs). LBs are a pathological hallmark of several neurodegenerative disorders commonly called synucleinopathies, and are associated with neuronal cell dysfunction and death. Nuclear and mitochondrial localization of  $\alpha$ -synuclein have also been reported, suggesting additional functions for this protein.  $\alpha$ -synuclein demonstrates an inhibitory effect on Complex I, affecting the mitochondrial respiration chain. Differential mitochondrial expression levels of  $\alpha$ -synuclein in various brain regions may be a potential factor leading to mitochondrial dysfunction, predisposing some neurons to degeneration reported in neurodegenerative disorders.



The primary structure of  $\alpha$ -synuclein is divided into three distinct domains: 1) an amphipathic N-terminal region dominated by four 11-residue repeats including the consensus sequence KTKEGV (aa 1-60), 2) a central hydrophobic region, which includes the non-amyloid- $\beta$  component (NAC) region, involved in protein aggregation (aa 61-95), and 3) a highly acidic and proline-rich region (aa 96-140).



## Human α-Synuclein ELISA Kit: A Fit-for-Purpose α-Synuclein Assay for Clinical Cohorts



BioLegend's α-synuclein ELISA kit features:

- Chemiluminescent detection
- Ultra sensitivity, as low as 6 pg/mL
- Highly reproducible results
- No cross-reactivity with β- or γ-Synucleins
- Compatibility with CSF, plasma, serum, saliva, whole blood, and cell lysate samples

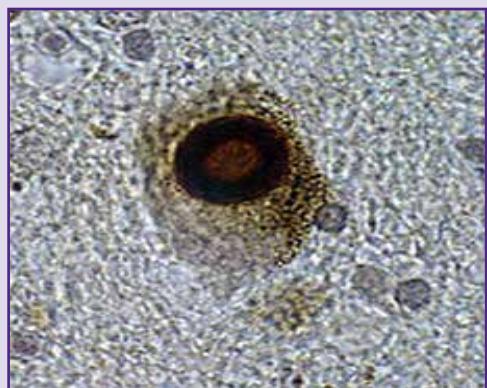
## Antibodies to α-Synuclein

Specificity	Clone	Format	Size	Cat. No.
α-Synuclein	4D6	Purified	200 µL, 500 µL, 1 ml	834301, 834302, 834303
α-Synuclein, 103-108	4B12/Sy-nuclein	Purified	200 µL, 500 µL, 1 ml	807801, 807802, 807803
α-Synuclein, 115-121	LB509	Purified	200 µL, 500 µL, 1 ml	807701, 807702, 807703
	LB509 (serum-free)	Purified	200 µL	807704
α-Synuclein Phospho (Ser129)	P-syn/81A	Purified	100 µL	825701
Synuclein-α/β, 130-140	Syn 202	Ascites	200 µL	836601
α-Synuclein	Syn 204	Ascites	200 µL	838201
α-Synuclein	Syn303	Purified	100 µL	824301
α-Synuclein, Nitrated	Syn514	Purified	100 µg	838903

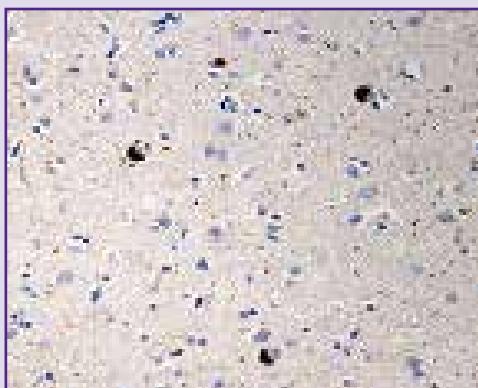
## Human α-Synuclein ELISA Kit

Description	Size	Cat. No.
LEGEND MAX™ Human α-Synuclein ELISA Kit with Pre-coated Plate	1 kit	844101

α-Synuclein



Phospho-α-Synuclein (Ser129)



α-Synuclein, nitrated



IHC staining of a substantia nigra Lewy body with anti-α-Synuclein antibody (clone 4D6) detected in human PD brain.

IHC staining of human PD brain tissue with anti-phospho-α-Synuclein antibody (clone P-syn/81A).

IHC staining of human PD brain tissue with anti-nitrated α-Synuclein antibody (clone Syn514).

# Amyloid Precursor Protein (APP)/Beta Amyloid

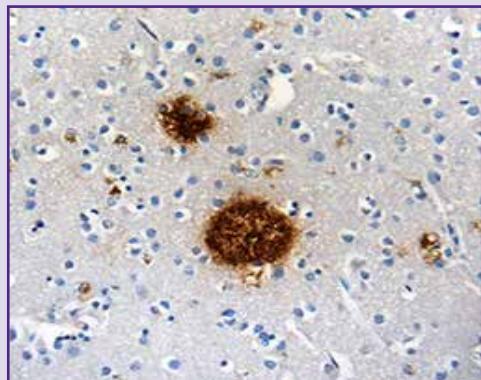
BioLegend offers highly specific reagents for:

- Intracellular, extracellular, and APP cleavage-specific antibodies
- Epitopes that enable discrimination between highly homologous A $\beta$  peptides
- Broad epitopes that are universal to A $\beta$  peptides
- Colorimetric ELISA kits for A $\beta$  detection

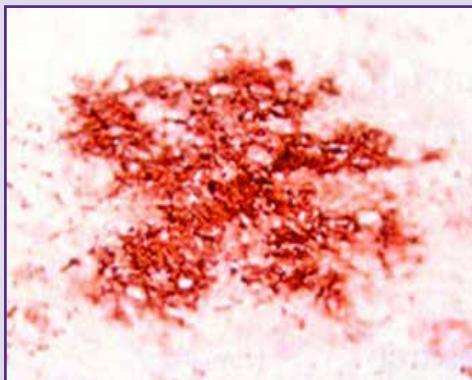
Amyloid Precursor Protein (APP) is a type-I transmembrane protein that is highly expressed in neuronal tissues and enriched at synapses. APP is thought to function as a regulator of synapse formation, neurite growth, axonogenesis, and neural plasticity. APP undergoes sequential proteolytic processing through two distinct pathways: 1) the amyloidogenic pathway that generates Amyloid Beta (A $\beta$ ) peptides and 2) the non-amyloidogenic pathway that precludes the generation of A $\beta$ . Cleavage of APP either by  $\alpha$ -secretase,  $\beta$ -secretase or  $\gamma$ -secretase leads to generation and extracellular release of soluble APP peptides, sAPP- $\alpha$  and sAPP- $\beta$ , and the retention of the corresponding membrane-anchored C-terminal fragments, C80, C83 and C99. Alternatively, presenilin/nicastrin-mediated  $\gamma$ -secretase processing of C99 releases A $\beta$ 40 and A $\beta$ 42, major components of amyloid plaques, and the cytotoxic C-terminal fragments. Subsequent processing of C80 and C83 by  $\gamma$ -secretase yields P3 peptides.

Learn more at: [biolegend.com/amyloid\\_precursor\\_protein](http://biolegend.com/amyloid_precursor_protein)

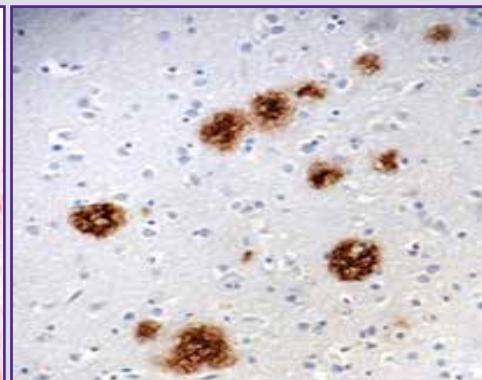
$\beta$ -Amyloid, 1-42



$\beta$ -Amyloid, 1-16



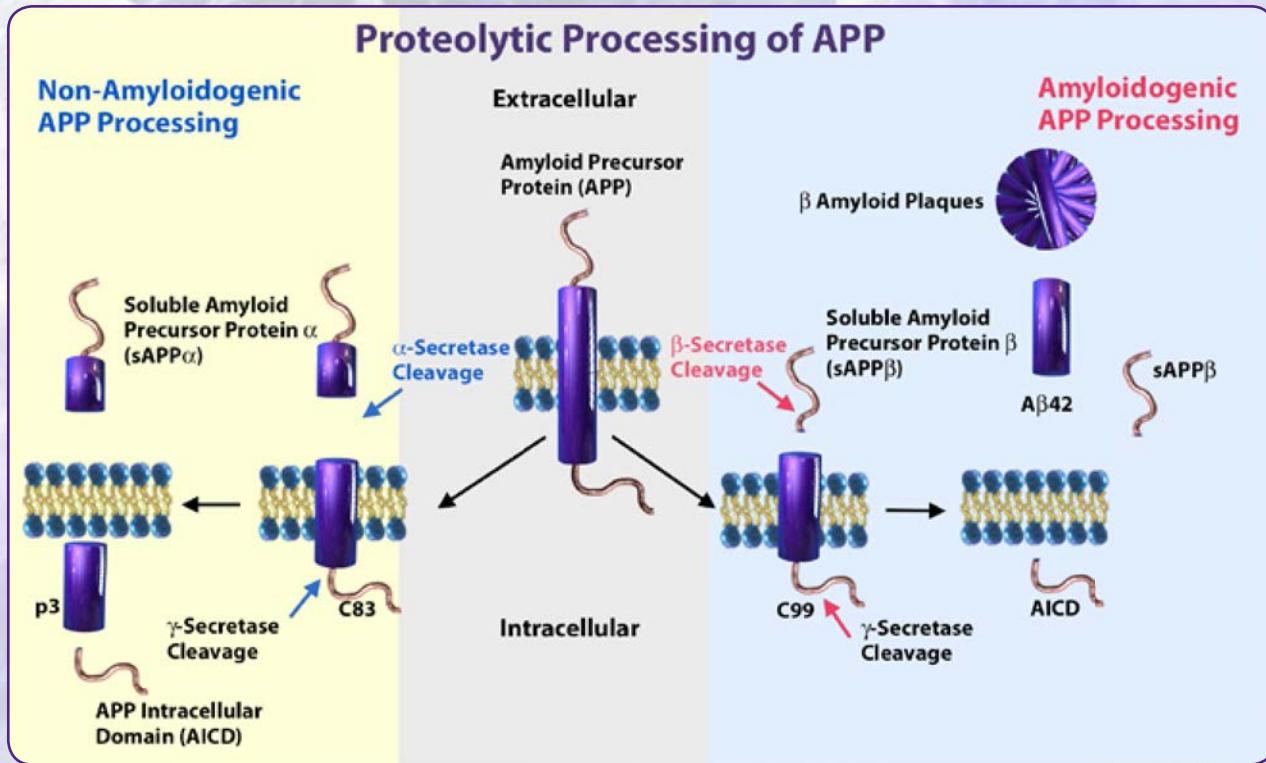
Pyroglutamyl  $\beta$ -Amyloid



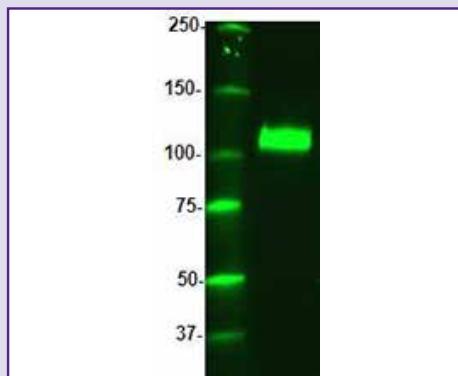
IHC staining of amyloid beta plaques with anti- $\beta$ -Amyloid antibody (clone 12F4) detected in formalin-fixed paraffin-embedded human AD brain.

IHC staining of amyloid beta plaque with anti- $\beta$ -Amyloid antibody (clone 6E10) detected in brain tissue section of APP transgenic mice.

IHC staining of amyloid beta plaques detected in formalin-fixed paraffin-embedded human AD brain tissue with anti-Pyroglutamyl  $\beta$ -Amyloid antibody (clone 337.48).



$\beta$ -Amyloid, 17-24



$\beta$ -Amyloid, 17-24



## Antibodies to Amyloid Precursor Protein & Beta Amyloid Peptides

Specificity	Clone	Format	Size	Cat. No.
B-Amyloid	Poly18058	Purified	50 µg	805801
		Biotin	50 µg	805803
B-Amyloid	Poly18268	Purified	200 µL	826801
B-Amyloid, 1-8	1E11	Purified	200 µL, 1ml	805201, 805203
B-Amyloid, 1-8	2H4	Purified	200 µL	805301
B-Amyloid, 1-10	20.1	Purified	200 µL	806201
B-Amyloid, 1-11	NAB 228	Ascites	200 µL	835101
B-Amyloid, 1-16	6E10	Purified	200 µL, 500 µL, 1ml	803001, 803002, 803003
		LEAF™	1 ml	803006
		Ascites	200 µL, 500 µL, 1 ml	803015, 803016, 803017
		Alexa Fluor® 488	200 µL	803013
		Biotin	200 µL, 500 µL, 1 ml	803007, 803008, 803008
		HRP	400 µL	803011
B-Amyloid, 1-16	Poly8029	Purified	50 µg	802901
B-Amyloid, 1-16	M3.2	Purified	200 µL, 1 ml	805701, 805702
		Biotin	200 µL, 1 ml	805703, 805704
B-Amyloid, 17.24	4G8	Purified	200 µL, 500 µL, 1 ml	800701, 800702, 800703
		Ascites	200 µL, 500 µL, 1ml	800709, 800710, 800711
		Biotin	200 µL, 500 µL, 1ml	800704, 800705, 800706
		HRP	200 µL	800707
β-Amyloid, 1-38	7-14-04	Purified	50 µg	808601
		Biotin	50 µL	808603
β-Amyloid, x-38	BA1-13	Purified	50 µg	825101
β-Amyloid, 1-40	11A50-B10	Purified	200 µL, 500 µL, 1 ml	805401, 805402, 805403
		Biotin	100 µL	805404
		HRP	200 µL	805407
β-Amyloid, x-40	29-6	Purified	100 µL	825201
β-Amyloid, x-40	139-5	Purified	50 µg	805901
		Biotin	50 µL	805903
β-Amyloid, 1-42	12F4	Purified	200 µL, 500 µL, 1 ml	805501, 805502, 805503
		Biotin	200 µL	805504
		HRP	200 µL	805507
β-Amyloid, x-42	BA3-9	Purified	50 µg	825301
β-Amyloid, x-42	1/11/03	Purified	50 µg	812101
		Biotin	50 µL	812103
β-Amyloid, 1-43	9C4/Amyloid	Purified	200 µL	805601
		Biotin	200 µL	805604
β-Amyloid Pyroglutamyl (Glu2)	337.48	Purified	100 µL	822301
Amyloid Fibril (pan reactive)	B10AP	Purified	50 µL	812201
APP	LN 27	Purified	200 µL	800901
APP, 573-596	IG6	Purified	200 µL	806001
		Biotin	200 µL	806004
APP, 61-77	D3B10	Purified	200 µL	806101
sAPPα	Poly8135	Purified	50 µg	813501
sAPPβ	Poly8134	Purified	50 µg	813401

## Antibodies to Gamma Secretase Cleavage Fragments

Specificity	Clone	Format	Size	Cat. No.
AICD	Poly8119	Purified	50 µg	811901
APP C-Terminal Fragment	Poly8250	Purified	50 µg	825001
APP C-Terminal Fragment	C1/6.1	Purified	200 µL, 1 ml	802801, 802802

## Antibodies to Secretase Proteins

Specificity	Clone	Format	Size	Cat. No.
Aph-1a, 245-265, C-terminus	Poly18231	Purified	100 µL	823101
BACE1, C-terminus	Poly8401	Serum	100 µL	840101
BACE1, C-terminus	Poly8402	Serum	100 µL	840201
CD156c (ADAM10)	SHM14	Purified	100 µg	352702
		PE	25 tests, 100 tests	352703, 352704
		APC	25 tests, 100 tests	352705, 352706
Presenilin 1, N-terminus	NT1	Purified	200 µL	823401
Presenilin 1, N-terminus	Poly18111	Purified	100 µL	811101
Presenilin 1, 21-80, C-terminus	24-4B5	Purified	200 µL	823301
Presenilin 1, 260-378 (Loop domain)	34-4C3	Purified	200 µL	823501
Presenilin 2	PS2	Tissue Culture Supernatant	1 ml	814201

## APP/Beta Amyloid Proteins & Peptides

Description	Size	Cat. No.
rHuman APP751	25 µg	842601
rHuman APP770	25 µg	843201
rHuman sAPPbeta (APP751 isoform)	20 µg	843501
rHuman β-Amyloid Peptide (1-40)	1 mg	843701
rHuman β-Amyloid Peptide (1-42)	1 mg	843801
rHuman β-Amyloid Scrambled Peptide (1-42)	500 µg	844001

## Beta Amyloid ELISA Kits

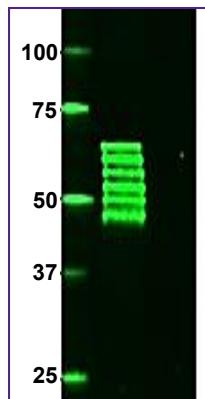
Description	Size	Cat. No.
β-Amyloid x-40 ELISA Kit (TMB)	1 kit	842301
β-Amyloid x-42 ELISA Kit (TMB)	1 kit	842401

# Tau

Tau belongs to a family of neuronal proteins that bind to microtubules (the neuron's transport system), stabilizing and maintaining their formation and maintenance. In the human brain, Tau protein exists as 6 isoforms that are produced by alternative splicing of a single gene called MAPT (Microtubule-Associated Protein Tau). Tau protein undergoes a variety of post-translational modifications (PTMs) which serve to regulate its function. These modifications include phosphorylation, glycosylation, glycation, prolyl-isomerization, cleavage or truncation, nitration, polyamination, ubiquitination, sumoylation, oxidation and aggregation. Differential post-translational modification of tau may affect its binding to other proteins and regulate its subcellular localization. Research interest in tau proteins began to grow when tangled forms of these proteins were found to make up the paired helical filaments in the brains of Alzheimer's disease (AD) patients.



Tau Phosphorylation has been extensively studied. Differential phosphorylation of tau impacts its biological function and pathogenic roles. The normal level of tau phosphorylation is a consequence of dynamic regulation of tau kinases and tau phosphatases. The major tau kinases include glycogen synthase kinase-3 $\beta$  (GSK-3 $\beta$ ), cyclin-dependent protein kinase 5 (cdk5), cAMP-dependent protein kinase (PKA), and stress-activated protein kinases. Among the protein phosphatases, PP2A is known to be an important one. Despite extensive studies, the causes leading to abnormal hyperphosphorylation of tau are still not fully understood. Hyperphosphorylation of tau protein reduces its binding affinity to microtubules, thus disrupting neuronal structural organization and maintenance. Excess levels of unbound tau protein leads to abnormal aggregation of tau, formation of insoluble fibrils, and intracellular neurofibrillary tangles observed in AD and other tauopathies. In addition to hyperphosphorylation, alterations of tau itself, such as mutations in the MAPT gene, play a role in its aggregation.

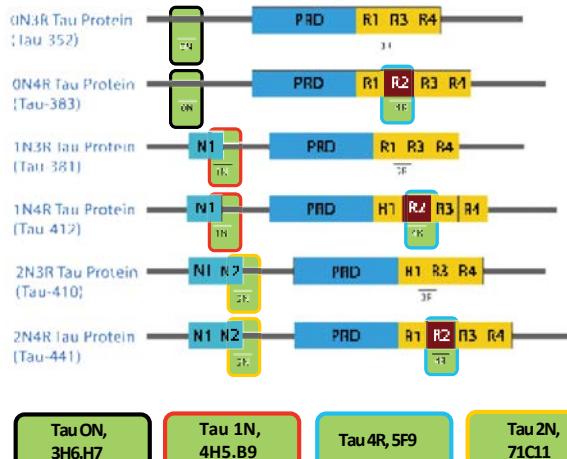


## Isoform-Specific Tau Antibodies

The six isoforms of tau are the products of alternative splicing of exons 2, 3, and 10 of the MAPT gene that in humans is known as MAPT. These isoforms are designated as 352, 381, 383, 410, 412 and 441. They differ from each other by the presence or absence of one or two N-terminal inserts (N1, N2), and by the presence of either three repeats (R1, R3, R4) or four C-terminal repeats (R1, R2, R3 and R4). The C-terminal repeat domains are believed to be important for microtubule binding as well as aggregation of tau into paired helical filaments.

BioLegend offers isoform-specific Tau antibodies that are suitable for IHC staining and western blotting.

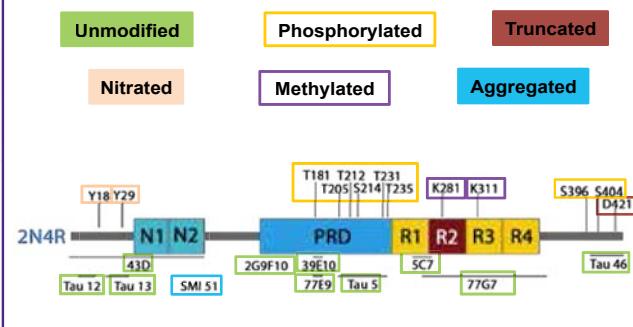
### Tau Isoform Specific Antibodies



## Pan-Isoform & Modified Tau Antibodies

BioLegend provides a wide selection of antibodies that recognize all six Tau isoforms (pan-isoform). These antibodies can recognize the unmodified, modified (methylated, nitrated, phosphorylated), truncated, or aggregated forms of these isoforms.

### Tau antibodies



Learn more at: [biologend.com/tau](http://biologend.com/tau)

## Isoform-Specific Antibodies to Tau

Specificity	Clone	Format	Size	Cat. No.
ON Tau	3H6.H7	Purified	100 µL	823801
1N Tau	4H5.B9	Purified	100 µL	823901
2N Tau	71C11	Purified	100 µL	816801
4R Tau	5F9	Purified	100 µL	823701

## Antibodies to Unmodified Tau

Specificity	Clone	Format	Size	Cat. No.
Tau	Poly8296	Purified	50 µg	829601
Tau, 6-18	Tau 12	Purified	100 µL	806501
Tau, 20-35	TAU-13	Ascites	500 µL	835201
Tau, 1-100	43D	Purified	100 µL	816601
Tau, 157-168	2G9.F10	Purified	100 µL	824601
Tau, 185-195	39E10	Purified	100 µL	814301
Tau, 210-230	77E10	Purified	100 µL	814401
Tau, 267-278	Tau 5	Purified	200 µL	806401
Tau, 316-355	5C7	Purified	100 µL	814501
Tau, 404-421	77G7	Purified	100 µL	816701
	Tau46	Purified	200 µL	806601

## Antibodies to Modified Tau

Specificity	Clone	Format	Size	Cat. No.
Tau, Dimethyl (Lys281)	1C9.G6	Purified	100 µL	829601
Tau, Dimethyl (Lys311)	7G5.F4	Purified	100 µL	806501
Tau, Nitrated (Tyr18)	Tau-nY18	Purified	100 µL	835201
Tau, Nitrated (Tyr29)	Tau-nY29	Purified	100 µL	816601
Tau, Phospho (Ser214)	Poly8071	Purified	50 µg	824601
Tau, Phospho (Ser235)	Poly8073	Purified	50 µg	814301
Tau, Phospho (Ser396)	PHF-13	Purified	100 µL	814401
	Poly8074	Purified	50 µg	806401
Tau, Phospho (Ser404)	Poly8075	Purified	50 µg	814501
Tau, Phospho (Thr181)	Poly8068	Purified	100 µL	806801
Tau, Phospho (Thr205)	Poly8069	Purified	50 µg	806901
Tau, Phospho (Thr212)	Poly8070	Purified	50 µg	807001
Tau, Phospho (Thr231)	PHF-6	Purified	100 µL	828901
	Poly8072	Purified	50 µg	807201

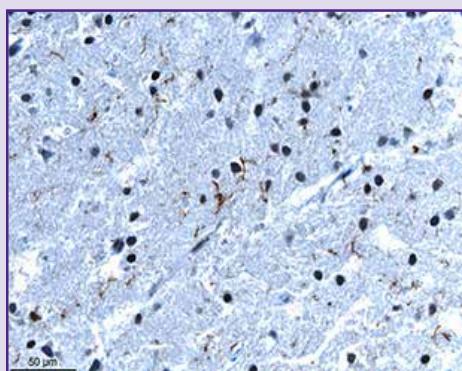
## Antibodies to Truncated and Aggregated Tau

Specificity	Clone	Format	Size	Cat. No.
Tau, x-421	C3	Purified	200 µL	806301
Tau, 95-108 (PHF)	SMI 51	Ascites	100 µL	836101
Tau	Tau 2	Purified	100 µL	806701

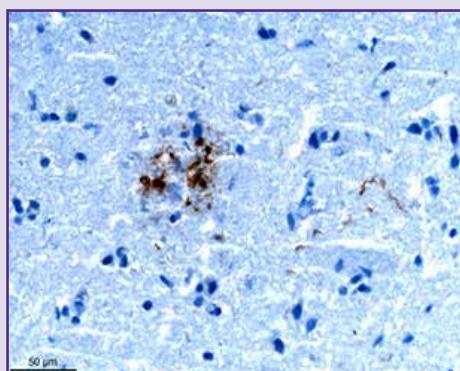
## Protein Misfolding and Aggregation-Other Related Antibodies

Specificity	Clone	Format	Size	Cat. No.
CD156c (ADAM10)	SHM14	APC	25 tests   100 tests	352705   352706
		PE	25 tests   100 tests	352703   352704
		Purified	100 µg	352702
CD230 (Prion)	3F4	APC	25 tests   100 tests	800315   800316
		Ascites	200 µL	800307
		Biotin	200 µg   500 µg 1 mg	800304   800305 800306
		FITC	25 tests   100 tests	800313   800314
		PE	25 tests   100 tests	800317   800318
		Purified	200 µg   500 µg 1 mg	800301   800302 800303
CD230 (Prion)	6D11	Purified	100 µL   250 µL 500 µL	808001   808002 808003
CD230 (Prion)	7D9	Purified	200 µL	807901
GAPDH	Poly6314	Purified	125 µL (5 Western blots)   500 µL (20 Western blots)	631401   631402
GAPDH	FF26A/F9	Direct-Blot™	100 µL (20 Western blots)	649203
		Purified	25 µg   100 µg	649201   649202
GAPDH	1D4	Tissue Culture Supernatant	200 µL	919501
IGBP-1	5F6	Purified	100 µL	828601
I1PP2A	5A2	Purified	100 µL	816901
I1PP2A	5A10	Purified	100 µL	817001
I2PP2A	3F2	Purified	100 µL	817101
PME-1	8A6-F8	Purified	100 µL	820901
PME-1	20G3SC	Purified	25 µg   100 µg	652901   652902
PP2AC	7A6/PP2AC	Purified	100 µL	828501
PP2AC (Leu309)	1D7	Purified	100 µL	824101
PP2AC Methyl (Leu 309)	2A10	Purified	100 µL	828801
PP2Aa	5H4/PP2Aa	Ascites	200 µL	839501
PPP2R1A	6G3	Purified	100 µL	824901
PPP2R1A	6F9	Purified	100 µL	829101
PPP2R2A	2G9	Purified	100 µL	831301
PPP2R4 (PTPA)	5G3	Purified	100 µL	824401
PPP2R5D	H5-D12	Purified	100 µL	828401
PPP2R5E	5A5-F3	Purified	100 µL	815401
TDP43	TDP2H4	Purified	100 µL	808301
TDP43 Phospho (Ser409/410)	1D3/TDP-43	Purified	100 µL	829901

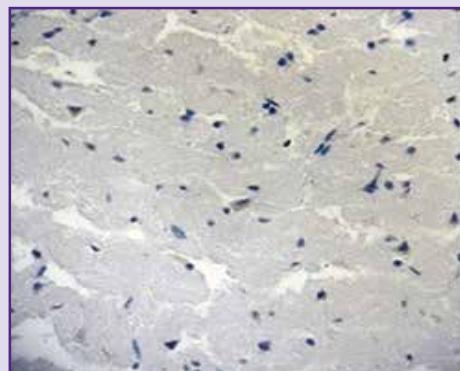
Phospho-Tau (Thr 181)



Phospho-Tau (Thr 205)



Methylated Tau (Lys 281)



IHC staining of axons on formalin-fixed paraffin-embedded human AD brain tissue using anti-phospho-Tau antibody (Poly8068).

IHC staining of dystrophic neurites surrounding an amyloid plaque on formalin-fixed paraffin-embedded human AD brain tissue using anti-phospho-Tau antibody (Poly8069).

IHC staining on formalin-fixed paraffin-embedded human AD brain tissue stained with anti-methylated Tau antibody (clone 1C9.G6).

# Neuroinflammation

Neuroinflammation represents the response of the central nervous system to perturbations of homeostasis. Inflammatory responses may result from a variety of insults, including trauma and infection. Evidence of a pro-inflammatory state is a finding typical of most CNS diseases including neurodegeneration. BioLegend offers a complete portfolio of products to interrogate inflammatory pathways, e.g. innate immunity, cytokines.

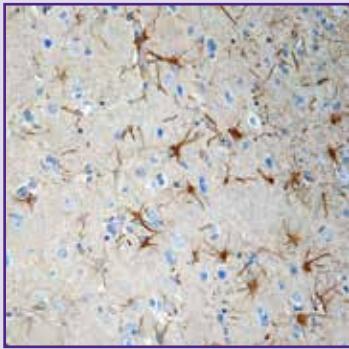
## Neuroinflammation Antibodies

Specificity	Clone	Format	Size	Cat. No.
Annexin A1	74/3	Purified	100 µL	831601
Apo-D	8CD6	Purified	200 µL   500 µL 1 ml	826503   826504 826505
Arginase I	14D2C43	PE	25 tests   100 tests	369703   369704
		Purified	25 µg   100 µg	369701   369702
Arginase I	O94E6/ARG1	Purified	25 µg   100 µg	678801   678802
Blood Group Antigen Precursor (BG1)	K21	Purified	25 µg   100 µg	932101   932102
C3a/C3a(desArg)/C3	K13/16	LEAF™	50 µg   500 µg	518103   518104
		Purified	50 µg   500 µg	518101   518102
C3a/C3a(desArg)/C3	D17/1	Biotin	50 µg   500 µg	518001   518002
C3AR	hC3aRZ8	APC	25 tests   100 tests	345805   345806
		PE	100 tests	345804
		Purified	100 µg	345802
C3b/iC3b	3E7/C3b	Purified	100 µg	846102
C5a/C5a(desArg)	C17/5	Purified	50 µg   500 µg	518201   518202
C5a/C5a(desArg)/C5	G25/2	Biotin	50 µg   500 µg	518305   518306
		LEAF™	500 µg	518304
C5L2	1D9-M12	APC	25 tests   100 tests	342405   342406
		PE	25 tests   100 tests	342403   342404
		Purified	100 µg	342402

Specificity	Clone	Format	Size	Cat. No.
CCL2 (MCP-1)	5D3-F7	Biotin	50 µg   500 µg	502608   502609
		LEAF™	500 µg	502607
		PE	100 tests	502604
CCL2 (MCP-1)	4E2/MCP	Purified	50 µg   500 µg	502601   502602
		Biotin	500 µg	506002
		Purified	500 µg	506004
CCL2 (MCP-1)	2H5	APC	25 µg   100 µg	505909   505910
		Biotin	50 µg   500 µg	505907   505908
		LEAF™	50 µg   500 µg	505905   505906
CCL4 (MIP-1β)	W15138A	PE	25 µg   100 µg	505903   505904
		Purified	50 µg   500 µg	505901   505902
		Purified	100 µg	686202
CCL5 (RANTES)	J047C5	Purified	500 µg	526402
CCL5 (RANTES)	Poly5197	Biotin	50 µg	519703
CCL5 (RANTES)	2E9/CCL5	PE	25 µg   100 µg	149103   149104
CCL8 (MCP-2)	L3715B6	Purified	50 µg   500 µg	528601   528602
CCL8 (MCP-2)	Poly5210	Biotin	50 µg	521003
CCL 11	16D10A40	Purified	500 µg	656701
CCL 11	L402H11	Purified	500 µg	660402
CD11a	I21/7	Purified	100 µL	830401
CD11a	TS2/4	FITC	100 tests	350604
		PE	25 tests   100 tests	350605   350606
		PerCP	100 tests	350608
		Purified	100 µg	350602
CD11a	HI111	Alexa Fluor® 488	100 tests	301216
		Alexa Fluor® 594	100 µg	301222
		Alexa Fluor® 647	100 tests	301218
		APC	100 tests	301212
		Biotin	100 µg	301204
		FITC	100 tests	301206
		LEAF™	50 µg   500 µg	301213   301214
		PE	25 tests   100 tests	301207   301208
		PE/Cy5	100 tests	301210
		PE/Cy7	25 tests   100 tests	301219   301220
		Purified	100 µg	301202
		Purified (MaxPar® Ready)	100 µg	301223
CD11a	WT.1	Purified	100 µg	201901

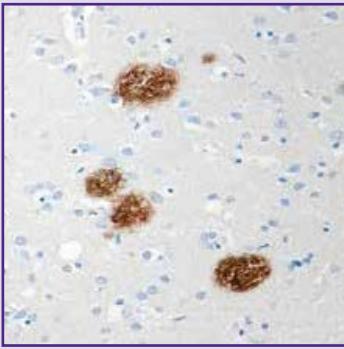
Learn more at: [biologen.com/neuroinflammation](http://biologen.com/neuroinflammation)

CX3CR1



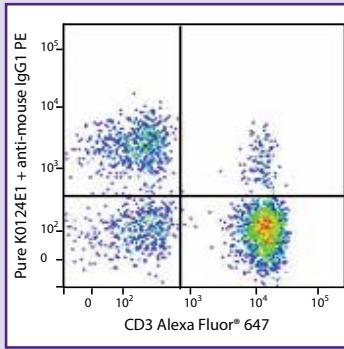
Staining of CX3CR1 (clone 8E10.D9) on formalin-fixed, paraffin-embedded human brain.

Apo E4



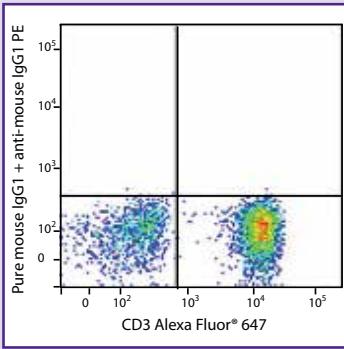
Strong staining of Apo E4-associated plaques on formalin-fixed, paraffin-embedded human Alzheimer's brain tissue using clone 5A9.

CD3 and CX3CR1



Human peripheral blood lymphocytes were stained with anti-human CD3 (clone HIT3a) Alexa Fluor® 647 and purified anti-human CX3CR1 (clone K0124E1, left) or mouse IgG1, κ isotype control (right), followed by anti-mouse IgG1 PE.

Isotype Control



## Neuroinflammation Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.
CD11a	M17/4	Alexa Fluor® 488	25 µg	101111
		Alexa Fluor® 647	25 µg   100 µg	101113   101114
		APC	25 µg   100 µg	101119   101120
		Biotin	50 µg	101103
		FITC	500 µg	101106
		LEAF™	50 µg   500 µg 1 mg	101109   101110 101115
		PE	50 µg	101107
		PE/Cy7	25 µg   100 µg	101121   101122
		PerCP/Cy5.5	25 µg   100 µg	101123   101124
		Purified	50 µg	101101
		Ultra-LEAF™	1 mg	101118
CD11a	2D7	Alexa Fluor® 594	100 µg	101010
		FITC	50 µg   500 µg	101005   101006
		PE	50 µg   200 µg	101007   101008
		Purified	500 µg	101002
CD14	63D3	Alexa Fluor® 700	25 tests   100 tests	367113   367114
		APC	25 tests   100 tests	367117   367118
		APC/Cy7	25 tests   100 tests	367107   367108
		APC/Fire™ 750	25 tests   100 tests	367119   367120
		Biotin	25 µg   100 µg	367105   367106
		FITC	25 tests   100 tests	367115   367116
		PE	25 tests   100 tests	367103   367104
		PE/Cy7	25 tests   100 tests	367111   367112
		PerCP/Cy5.5	25 tests   100 tests	367109   367110
		Purified	25 µg   100 µg	367101   367102
CD14	HCD14	Alexa Fluor® 488	100 tests	325610
		Alexa Fluor® 594	100 µg	325630
		Alexa Fluor® 647	25 tests   100 tests	325611   325612
		Alexa Fluor® 700	100 µg	325614
		APC	25 tests   100 tests	325607   325608
		APC/Cy7	25 tests   100 tests	325619   325620
		Biotin	25 µg   100 µg	325623   325624
		Brilliant Violet 421™	25 tests   100 tests	325627   325628
		FITC	25 tests   100 tests	325603   325604
		Pacific Blue™	25 µg   100 µg	325615   325616
		PE	25 tests   100 tests	325605   325606
		PE/Cy7	25 tests   100 tests	325617   325618
		PE/Dazzle™ 594	25 tests   100 tests	325633   325634
		PerCP	25 tests   100 tests	325631   325632
CD14	M5E2	PerCP/Cy5.5	25 tests   100 tests	325621   325622
		Purified	100 µg	325602
		Alexa Fluor® 488	100 tests   25 tests	301811   301817
		Alexa Fluor® 647	100 tests   25 tests	301812   301818
		Alexa Fluor® 700	100 µg	301822
		APC	25 tests   100 tests	301807   301808
		APC/Cy7	25 tests   100 tests	301819   301820
		APC/Fire™ 750	25 tests   100 tests	301853   301854
		Biotin	100 µg	301826
		Brilliant Violet 421™	25 tests   100 tests	301829   301830
		Brilliant Violet 510™	25 tests   100 tests	301841   301842
		Brilliant Violet 570™	25 tests   100 tests	301831   301832
		Brilliant Violet 605™	25 tests   100 tests	301833   301834
		Brilliant Violet 650™	25 tests   100 tests	301835   301836
CD14	711™	Brilliant Violet 711™	25 tests   100 tests	301837   301838
		Brilliant Violet 785™	25 tests   100 tests	301839   301840
		FITC	25 tests   100 tests	301803   301804
		LEAF™	50 µg   500 µg	301809   301810
		Pacific Blue™	100 µg   25 µg 100 tests	301815   301816 301828
		PE	25 tests   100 tests	301805   301806
		PE	100 µg	301850
		PE/Cy7	25 tests   100 tests	301813   301814

Specificity	Clone	Format	Size	Cat. No.
CD14	M14-23	PE/Dazzle™ 594	25 tests   100 tests	301851   301852
		PerCP	25 tests   100 tests	301847   301848
		PerCP/Cy5.5	25 tests   100 tests	301823   301824
		Purified	25 µg   100 µg	301801   301802
		Purified (MaxPar® Ready)	100 µg	301843
		Ultra-LEAF™	500 µg	301846
		Purified	25 µg   100 µg	150101   150102
		Ultra-LEAF™	50 µg   500 µg	150103   150104
		APC	25 µg   100 µg	123311   123312
		APC/Cy7	25 µg   100 µg	123317   123318
CD14	Sa14-2	Biotin	50 µg   500 µg	123305   123306
		Brilliant Violet 510™	50 µg	123323
		FITC	50 µg   500 µg	123307   123308
		PE	50 µg   200 µg	123309   123310
		PE/Cy7	25 µg   100 µg	123315   123316
		PerCP/Cy5.5	25 µg   100 µg	123313   123314
		Purified	500 µg	123302
		Purified (MaxPar® Ready)	100 µg	123321
		CD18	100 µL	831401
		CD18	100 µL	830501
CD21	Bu32	APC	25 tests   100 tests	354905   354906
		Biotin	50 µg	354913
		FITC	25 tests   100 tests	354909   354910
		PE	25 tests   100 tests	354903   354904
		PE/Cy7	25 tests   100 tests	354911   354912
		PerCP/Cy5.5	25 tests   100 tests	354907   354908
		Purified	100 µg	354902
		CD21/CD35 (CR2/CR1)	Alexa Fluor® 647	25 µg   100 µg
		CD21/CD35 (CR2/CR1)	APC	25 µg   100 µg
		CD21/CD35 (CR2/CR1)	APC/Cy7	25 µg   100 µg
CD31	7E10	Biotin	50 µg   500 µg	123405   123406
		Brilliant Violet 421™	125 µL	123421
		FITC	50 µg   500 µg	123407   123408
		LEAF™	500 µg	123404
		Pacific Blue™	25 µg   100 µg	123413   123414
		PE	50 µg   200 µg	123409   123410
		PE/Cy7	25 µg   100 µg	123419   123420
		PerCP/Cy5.5	25 µg   100 µg	123415   123416
		CD31	Alexa Fluor® 488	25 tests   100 tests
		CD31	Alexa Fluor® 594	100 µg
CD31	WM59	Alexa Fluor® 647	25 tests   100 tests	303111   303112
		Alexa Fluor® 700	25 tests   100 tests	303133   303134
		APC	25 tests   100 tests	303115   303116
		APC/Cy7	25 tests   100 tests	303119   303120
		Brilliant Violet 421™	25 tests   100 tests	303123   303124
		Brilliant Violet 605™	25 tests   100 tests	303121   303122
		FITC	25 tests   100 tests	303103   303104
		LEAF™	500 µg	303108
		Pacific Blue™	25 µg   100 µg	303113   303114
		PE	25 tests   100 tests	303105   303106
CD31	MEC13.3	PE/Cy7	25 tests   100 tests	303117   303118
		PE/Dazzle™ 594	25 tests   100 tests	303129   303130
		PerCP/Cy5.5	25 tests   100 tests	303131   303132
		Purified	25 µg   100 µg	303101   303102
		Purified (MaxPar® Ready)	100 µg	303127
		CD31	Alexa Fluor® 488	25 µg   100 µg
		CD31	Alexa Fluor® 594	100 µg
		CD31	Alexa Fluor® 647	25 µg   100 µg
		CD31	APC	25 µg   100 µg
		CD31	Biotin	50 µg   500 µg
CD31	FITC	CD31	FITC	500 µg
		CD31	LEAF™	50 µg   500 µg
		CD31	PE	50 µg   200 µg
		CD31	PE/Cy7	25 µg   100 µg
		CD31	PerCP/Cy5.5	100 µg
		CD31	PerCP/Cy5.5	100 µg

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD31	390	Purified	50 µg   500 µg	102501   102502			PE	25 tests   100 tests	343505   343506
		Alexa Fluor® 488	25 µg   100 µg	102413   102414			PE/Cy7	25 tests   100 tests	343515   343516
		Alexa Fluor® 594	100 µg	102432			PE/Dazzle™ 594	25 tests   100 tests	343533   343534
		Alexa Fluor® 647	25 µg   100 µg	102415   102416			PerCP	25 tests   100 tests	343519   343520
		APC	25 µg   100 µg	102409   102410			PerCP/Cy5.5	25 tests   100 tests	343521   343522
		APC/Fire™ 750	25 µg   100 µg	102433   102434			Purified	25 µg   100 µg	343501   343502
		Biotin	500 µg	102404			Purified (MaxPar® Ready)	100 µg	343531
		Brilliant Violet 421™	125 µL	102423					
		Brilliant Violet 605™	50 µg	102427					
		FITC	50 µg   500 µg	102405   102406					
CD31 (PECAM-1)	P2B1	LEAF™	500 µg	102412					
		Pacific Blue™	25 µg   100 µg	102421   102422					
		PE	50 µg   200 µg	102407   102408					
		PE/Cy7	25 µg   100 µg	102417   102418					
		PE/Dazzle™ 594	25 µg   100 µg	102429   102430					
		PerCP/Cy5.5	25 µg   100 µg	102419   102420					
		Purified	50 µg   500 µg	102401   102402					
		Purified (MaxPar® Ready)	100 µg	102425					
		Ascites	100 µL	910003					
		Purified	100 µg	910005					
CD33	P67.6	APC	25 tests   100 tests	366605   366606					
		APC/Cy7	25 tests   100 tests	366613   366614					
		Brilliant Violet 510™	25 tests   100 tests	366609   366610					
		Brilliant Violet 605™	25 tests   100 tests	366611   366612					
		FITC	25 tests   100 tests	366619   366620					
		PE	25 tests   100 tests	366607   366608					
		PE/Cy7	25 tests   100 tests	366617   366618					
		PerCP/Cy5.5	25 tests   100 tests	366615   366616					
		Purified	25 µg   100 µg	366601   366602					
		CD33	WM53	APC	25 tests   100 tests	303407   303408			
CD33	HIM3-4	Brilliant Violet 421™	25 tests   100 tests	303415   303416					
		Brilliant Violet 510™	25 tests   100 tests	303421   303422					
		Brilliant Violet 570™	25 tests	303417					
		Brilliant Violet 711™	25 tests   100 tests	303423   303424					
		LEAF™	500 µg	303410					
		PE	25 tests   100 tests	303403   303404					
		PE/Cy5	100 tests	303406					
		PerCP/Cy5.5	25 tests   100 tests	303413   303414					
		Purified	100 µg	303402					
		Purified (MaxPar® Ready)	100 µg	303419					
CD33	QBEnd/10	FITC	25 tests   100 tests	303303   303304					
		Purified	100 µg	303302					
		CD34	Purified	50 µL	826401				
		CD34	561	APC	25 tests   100 tests	343607   343608			
		APC/Cy7	25 tests   100 tests	343613   343614					
		Brilliant Violet 421™	25 tests   100 tests	343609   343610					
		FITC	25 tests   100 tests	343603   343604					
		PE	25 tests   100 tests	343605   343606					
		PE/Cy7	25 tests   100 tests	343615   343616					
		PerCP/Cy5.5	25 tests   100 tests	343611   343612					
CD34	581	Purified	100 µg	343602					
		Alexa Fluor® 488	25 tests   100 tests	343517   343518					
		Alexa Fluor® 647	25 tests   100 tests	343507   343508					
		Alexa Fluor® 700	25 tests   100 tests	343525   343526					
		APC	25 tests   100 tests	343509   343510					
		APC/Cy7	25 tests   100 tests	343513   343514					
		Biotin	25 µg   100 µg	343523   343524					
		Brilliant Violet 510™	25 tests   100 tests	343527   343528					
		Brilliant Violet 605™	25 tests   100 tests	343529   343530					
		FITC	25 tests   100 tests	343503   343504					
CD34	VIMD2	Pacific Blue™	25 µg   100 µg	343511   343512					
		PE	25 tests   100 tests	343518					
		PE/Cy7	25 tests   100 tests	343507   343508					
		PerCP/Cy5.5	25 tests   100 tests	343511   343512					
		Purified	100 µg	344302					
		CD93	VIMD2	Biotin	100 µg	336104			
		CD93	74.5.2	Ascites	100 µL	920601			
		CD93	AA4.1	APC	25 µg   100 µg	136509   136510			
		FITC	50 µg   200 µg	136507   136508					
		PE	50 µg   200 µg	136503   136504					
CD34	74.5.2	PE/Cy7	25 µg   100 µg	136505   136506					

## Neuroinflammation Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD93 (C1q receptor)	60.11	PerCP/Cy5.5 Ascites	25 µg   100 µg 100 µL	136511   136512 920701			Brilliant Violet 510™	25 tests   100 tests	353725   353726
CD105 (Endoglin)	SN6h	PE Purified	25 tests   100 tests 1 ml	800503   800504 800501			Brilliant Violet 605™	25 tests   100 tests	353727   353728
CD106	429 (MVCAM.A)	Alexa Fluor® 488 Alexa Fluor® 594 Alexa Fluor® 647 APC Biotin FITC LEAF™ Pacific Blue™	100 µg 100 µg 25 µg   100 µg 25 µg   100 µg 50 µg   500 µg 50 µg   500 µg 500 µg 100 µg	105710 105724 105711   105712 105717   105718 105703   105704 105705   105706 105708 105722			Brilliant Violet 650™	25 tests   100 tests	353729   353730
							Brilliant Violet 711™	25 tests   100 tests	353731   353732
							Brilliant Violet 785™	25 tests   100 tests	353737   353738
							FITC	25 tests   100 tests	353703   353704
							LEAF™	50 µg   500 µg	353717   353718
							Pacific Blue™	25 µg   100 µg	353723   353724
							PE	25 tests   100 tests	353705   353706
							PE/Cy7	25 tests   100 tests	353719   353720
							PE/Dazzle™ 594	25 tests   100 tests	353735   353736
							PerCP	25 tests   100 tests	353739   353740
							PerCP/Cy5.5	25 tests   100 tests	353713   353714
							Purified	100 µg	353702
CD106	MR106	PE Purified	50 µg 50 µg   500 µg	200403 200401   200402			Purified (MaxPar® Ready)	100 µg	353733
CD106	STA	APC Biotin PE	25 tests   100 tests 100 µg 25 tests   100 tests	305809   305810 305804 305805   305806	CD184 (CXCR4)	12G5	APC	25 tests   100 tests	306509   306510
							APC/Cy7	25 tests   100 tests	306527   306528
							Biotin	100 µg	306504
							Brilliant Violet 421™	25 tests   100 tests	306517   306518
CD106 (VCAM-1)	P3C4	Purified	100 µL	919801			Brilliant Violet 605™	25 tests   100 tests	306521   306522
CD120b	3G7A02	APC Biotin PE PE/Cy7 Purified Ultra-LEAF™	25 tests   100 tests 500 µg 25 tests   100 tests 25 tests   100 tests 100 µg 500 µg	358405   358406 358410 358403   358404 358411   358412 358402 358408			LEAF™	500 µg	306512
CD126 (IL-6Ra)	UV4	APC Biotin PE PE/Cy7 PerCP/Cy5.5 Purified	25 tests   100 tests 100 µg 25 tests   100 tests 25 tests   100 tests 25 tests   100 tests 25 µg   100 µg	352805   352806 352808 352803   352804 352809   352810 352811   352812 352801   352802	CD184 (CXCR4)	12G5	PE	25 tests   100 tests	306505   306506
							PE/Cy5	25 tests   100 tests	306507   306508
							PE/Cy7	25 tests   100 tests	306513   306514
							PE/Dazzle™ 594	25 tests   100 tests	306525   306526
							PerCP/Cy5.5	25 tests   100 tests	306515   306516
							Purified	25 µg   100 µg	306501   306502
							Purified (MaxPar® Ready)	100 µg	306523
CD141 (Thrombomodulin)	Phx-01	Purified	100 µL	902101	CD185 (CXCR5)	J252D4	Alexa Fluor® 488	25 tests   100 tests	356911   356912
CD141 (Thrombomodulin)	Phx-02	Purified	100 µL	902201			Alexa Fluor® 647	25 tests   100 tests	356905   356906
CD172b (SIRPβ1)	B1D5	Purified	100 µL	833601			Alexa Fluor® 700	25 tests   100 tests	356915   356916
CD172b (SIRPβ1)	84	Purified	100 µL	829201			APC	25 tests   100 tests	356907   356908
CD181 (CXCR1)	8F1/CXCR1	Alexa Fluor® 488 APC FITC PE PE/Cy7 PerCP/Cy5.5	100 tests 100 tests 25 tests   100 tests 100 tests 100 tests 100 tests	320616 320612 320605   320606 320608 320610 320620 320622			APC/Cy7	25 tests   100 tests	356925   356926
CD182 (CXCR2)	5E8/CXCR2	Alexa Fluor® 488 Alexa Fluor® 647 APC FITC PE PE/Cy7 PerCP/Cy5.5	100 tests 100 tests 100 tests 100 tests 25 tests   100 tests 25 tests   100 tests 100 tests	320712 320714 320710 320704 320705   320706 320715   320716 320717   320718	CD185 (CXCR5)	J252D4	Biotin	25 µg   100 µg	356931   356932
CD182 (CXCR2)	SA044G4	Alexa Fluor® 647 FITC PE PerCP/Cy5.5	25 µg   100 µg 25 µg   100 µg 25 µg   100 µg 25 µg   100 µg	149305   149306 149309   149310 149303   149304 149307   149308			Brilliant Violet 421™	25 tests   100 tests	356919   356920
CD183 (CXCR3)	G025H7	Alexa Fluor® 488 Alexa Fluor® 647 Alexa Fluor® 700 APC APC/Cy7 Biotin Brilliant Violet 421™	25 tests   100 tests 25 tests   100 tests 25 tests   100 tests 25 tests   100 tests 25 tests   100 tests 50 µg 25 tests   100 tests	353709   353710 353711   353712 353741   353742 353707   353708 353721   353722 353743 353715   353716			Brilliant Violet 605™	25 tests   100 tests	356919   356920
					CD185 (CXCR5)	L138D7	Alexa Fluor® 594	100 µg	356901   356902
							APC	25 µg   100 µg	145505   145506
							APC/Cy7	25 µg   100 µg	145525   145526
							Biotin	25 µg   100 µg	145509   145510
							Brilliant Violet 421™	125 µL   500 µL	145511   145512
							Brilliant Violet 605™	125 µL	145513
							Brilliant Violet 650™	50 µg	145517
							Brilliant Violet 785™	50 µg	145523
							FITC	25 µg   100 µg	145519   145520
							PE	25 µg   100 µg	145503   145504
							PE/Cy7	25 µg   100 µg	145515   145516
							PE/Dazzle™ 594	25 µg   100 µg	145521   145522

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD186 (CXCR6)	SA051D1	PerCP/Cy5.5	25 µg   100 µg	145507   145508			LEAF™	100 µg	314907
		Purified	100 µg	145502			PE	100 tests	314906
		APC	25 µg   100 µg	151105   151106			Purified	100 µg	314902
		Brilliant Violet 421™	50 µg	151109	complement C3/C3b/iC3b	7C12/C3b	Purified	100 µg	846402
		FITC	25 µg   100 µg	151107   151108	complement C3/C3b/iC3b	6C9/C3b	Purified	100 µg	846502
		PE	25 µg   100 µg	151103   151104	complement C3/C3b/iC3b/C3d	1H8/C3b	Purified	100 µg	846302
CD192 (CCR2)	K036C2	Purified	100 µg	151102	CX3CR1	8E10.D9	Purified	100 µL	824001
		APC	25 tests   100 tests	357207   357208	CX3CR1	K0124E1	PE	25 tests   100 tests	355703   355704
		APC/Cy7	25 tests   100 tests	357219   357220	CX3CR1	2A9-1	Purified	25 µg   100 µg	355701   355702
		Biotin	100 µg	357224	CX3CR1		Alexa Fluor® 647	25 tests   100 tests	341607   341608
		Brilliant Violet 421™	25 tests   100 tests	357209   357210			APC	25 tests   100 tests	341609   341610
		Brilliant Violet 510™	25 tests   100 tests	357217   357218			APC/Cy7	25 tests   100 tests	341615   341616
CD195 (CCR5)	J418F1	Brilliant Violet 605™	25 tests   100 tests	357213   357214			Biotin	50 µg	341617
		FITC	25 tests   100 tests	357215   357216			FITC	25 tests   100 tests	341605   341606
		PE	25 tests   100 tests	357205   357206			PE	25 tests   100 tests	341603   341604
		PE/Cy7	25 tests   100 tests	357211   357212			PE/Cy7	25 tests   100 tests	341611   341612
		PE/Dazzle™ 594	25 tests   100 tests	357221   357222			PerCP/Cy5.5	25 tests   100 tests	341613   341614
		PerCP/Cy5.5	25 tests   100 tests	357203   357204			Purified	100 µg	341602
		Purified	25 µg   100 µg	357201   357202	CXCL10 (IP-10)	J036G3	Purified	50 µg   500 µg	524401   524402
		Alexa Fluor® 488	25 tests   100 tests	359103   359104	CXCL10 (IP-10)	J034D6	PE	25 tests   100 tests	519503   519504
		Alexa Fluor® 647	25 tests   100 tests	359113   359114			Purified	50 µg   500 µg	519501   519502
		Alexa Fluor® 700	25 tests   100 tests	359115   359116	CXCL10 (IP-10)	Poly5194	Biotin	50 µg	519403
		APC	25 tests   100 tests	359121   359122	DJ-1 (PARK7)	E2.19	Purified	200 µL   1 ml	813801   813803
		APC/Cy7	100 tests	359110	DJ-1 (PARK7)	Poly18081	Purified	50 µg	808101
		Brilliant Violet 421™	25 tests   100 tests	359117   359118	DJ-1 (PARK7)	E2.19	Purified	50 µg	808101
		FITC	25 tests   100 tests	359119   359120	F4/80	BM8	Alexa Fluor® 488	25 µg   100 µg	813801   813803
CD205 (DEC-205)	HD30	Pacific Blue™	25 tests   100 tests	359123   359124			Alexa Fluor® 594	100 µg	123140
		PE	25 tests   100 tests	359105   359106			Alexa Fluor® 647	25 µg   100 µg	123121   123122
		PE/Cy7	25 tests   100 tests	359107   359108			Alexa Fluor® 700	25 µg   100 µg	123129   123130
		PE/Dazzle™ 594	25 tests   100 tests	359125   359126			APC	25 µg   100 µg	123115   123116
		PerCP/Cy5.5	25 tests   100 tests	359111   359112			APC/Cy7	25 µg   100 µg	123117   123118
		Purified	25 µg   100 µg	359101   359102			APC/Fire™ 750	25 µg   100 µg	123151   123152
		Purified	100 µL	821101			Biotin	50 µg   500 µg	123105   123106
		Purified	100 µg	845002			Brilliant Violet 421™	125 µL   500 µL	123131   123132
		MMD3	Purified	100 µL			50 µg	123137	
		CD209a		833001			Brilliant Violet 510™	50 µg	123135
		CD281 (TLR1)	TLR1.136	Biotin	100 µg		Brilliant Violet 605™	125 µL	123133
			Purified	100 µg		Brilliant Violet 650™	50 µg	123149	
		CD282 (TLR2)	TL2.1	Alexa Fluor® 488	100 tests		Brilliant Violet 711™	50 µg	123147
			Alexa Fluor® 647	100 tests		Brilliant Violet 785™	50 µg	123141	
CD282 (TLR2)	T2.5	FITC	25 tests   100 tests	309705   309706			FITC	50 µg   500 µg	123107   123108
		LEAF™	100 µg   500 µg	309709   309710			LEAF™	50 µg	123103
		PE	25 tests   100 tests	309707   309708			Pacific Blue™	25 µg   100 µg	123123   123124
		Purified	100 µg	309702			PE	25 µg   100 µg	123109   123110
		Alexa Fluor® 488	25 µg   100 µg	121807   121808			PE/Cy5	25 µg   100 µg	123111   123112
		Alexa Fluor® 647	25 µg   100 µg	121809   121810			PE/Cy7	25 µg   100 µg	123113   123114
CD283 (TLR3)	TLR-104	Biotin	100 µg	121804			PE/Dazzle™ 594	25 µg   100 µg	123145   123146
		FITC	25 µg   100 µg	121805   121806			PerCP	25 µg   100 µg	123125   123126
		Purified	25 µg   100 µg	121801   121802			PerCP/Cy5.5	25 µg   100 µg	123127   123128
CD284 (TLR4)	HTA125	PE	25 µg	315005			Purified	50 µg   500 µg	123101   123102
		Purified	100 µg	315002			Purified (MaxPar® Ready)	100 µg	123143
		APC	25 tests   100 tests	312815   312816					
		Biotin	100 µg	312804					
		Brilliant Violet 421™	25 tests	312811					
		LEAF™	100 µg   500 µg	312807   312808					
CD286 (TLR6)	TLR6.127	PE	25 tests   100 tests	312805   312806					
		Purified	100 µg	312802					
		Ultra-LEAF™	1 mg	312814					
CD325 (N-Cadherin)	13A9	Biotin	25 µg	334705					
		PE	25 tests   100 tests	334707   334708					
CD354 (TREM-1)	TREM-37	Purified	100 µg	316102					
		APC	100 tests	314909					
		Biotin	100 µg	314904					

## Neuroinflammation Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.
FMIP	F6D/11	Purified	100 µL	833401
Glutamic Acid Decarboxylase (GAD65/GAD2)	N-GAD65	Purified	100 µg	844502
		Ultra-LEAF™	100 µg	844503
HSC70 (HSPA8)	42615	Purified	100 µg	682102
HSP60	P83G8	Direct-Blot™	100 µL (20 Western blots)	681503
		Purified	100 µg	681502
Hsp70	4F8	Purified	100 µL	818101
Hsp70	W27	Alexa Fluor® 488	25 tests   100 tests	648003   648004
		Direct-Blot™	100 µL (20 Western blots)	648005
		Purified	25 µg   100 µg	648001   648002
Hsp90α	K41007	Purified	100 µg	661702
Hsp90α/β	K3720A	Purified	100 µg	661802
Hsp90α/β	3H3C27	Direct-Blot™	100 µL (20 Western blots)	675403
		Purified	100 µg	675402
IFN-γ	MD-1	LEAF™	500 µg	507513
		Purified	50 µg   500 µg	507501   507502
IFN-γ	B27	Alexa Fluor® 700	25 µg   100 µg	506515   506516
		APC	100 tests	506510
		APC/Cy7	25 tests   100 tests	506523   506524
		FITC	100 tests	506504
		LEAF™	50 µg   500 µg	506512   506513
		Pacific Blue™	25 tests   100 tests	506525   506526
		PE	25 tests   100 tests	506506   506507
		PE/Cy7	25 tests   100 tests	506517   506518
		PE/Dazzle™ 594	25 tests   100 tests	506529   506530
		PerCP/Cy5.5	25 tests   100 tests	506527   506528
		Purified	50 µg   500 µg	506501   506502
		Purified (MaxPar® Ready)	100 µg	506521
IFN-γ	4S.B3	Alexa Fluor® 488	100 tests   25 tests	502515   502517
		Alexa Fluor® 647	100 tests	502516
		Alexa Fluor® 700	25 µg   100 µg	502519   502520
		APC	25 tests   100 tests	502511   502512
		APC/Cy7	25 tests   100 tests	502529   502530
		APC/Fire™ 750	25 tests   100 tests	502547   502548
		Biotin	50 µg   500 µg	502503   502504
		Brilliant Violet 421™	25 tests   100 tests	502531   502532
		Brilliant Violet 510™	25 tests   100 tests	502543   502544
		Brilliant Violet 570™	25 tests   100 tests	502533   502534
		Brilliant Violet 605™	25 tests   100 tests	502535   502536
		Brilliant Violet 650™	25 tests   100 tests	502537   502538
		Brilliant Violet 711™	25 tests   100 tests	502539   502540
		Brilliant Violet 785™	25 tests   100 tests	502541   502542
		FITC	25 tests   100 tests	502505   502506
		50 µg	502507	
		Pacific Blue™	25 µg   100 µg	502521   502522
		PE	25 tests   100 tests	502508   502509
		50 µg	502510	
		PE/Cy7	25 tests   100 tests	502527   502528
		PE/Dazzle™ 594	25 tests   100 tests	502545   502546
		PerCP	25 tests   100 tests	502523   502524
		PerCP/Cy5.5	25 tests   100 tests	502525   502526
		Purified	50 µg   500 µg	502501   502502
IFN-γ	NIB42	LEAF™	50 µg   500 µg	502403   502404
		Purified	50 µg   500 µg	502401   502402
IL-1α	364-3B3-14	LEAF™	500 µg	500102
		PE	100 tests   50 µg	500106   500107
		Purified	500 µg	500104
IL-1α	BH0110	Biotin	4 plates	515703
IL-1β	Poly5174	Biotin	50 µg	517403

Specificity	Clone	Format	Size	Cat. No.
IL-1β	H1b-98	Alexa Fluor® 647	25 tests	511707
		Biotin	50 µg   500 µg	511703   511704
		FITC	25 tests	511705
		Pacific Blue™	25 µg   100 µg	511709   511710
IL-1β	H1b-27	LEAF™	500 µg	511604
IL-1β	JK1B-2	Purified	50 µg   500 µg	511601   511602
IL-1β	JK1B-1	Biotin	50 µg   500 µg	508301   508302
IL-1β	JK1B-1	Alexa Fluor® 647	25 tests   100 tests	508207   508208
		FITC	100 tests	508206
IL-1 RA	JK1RA-1	Purified	50 µg   500 µg	508201   508202
IL-1 RA	Poly5095	Biotin	500 µg	509901   509902
IL-2	Poly5176	Biotin	50 µg	517605
IL-2	MQ1-17H12	Alexa Fluor® 488	100 tests	500314
		Alexa Fluor® 647	100 tests	500315
		Alexa Fluor® 700	25 µg   100 µg	500319   500320
		APC	25 tests   100 tests	500309   500310
		APC/Cy7	50 µg	500311
		Brilliant Violet 421™	25 tests   100 tests	500327   500328
		Brilliant Violet 510™	25 tests   100 tests	500337   500338
		Brilliant Violet 605™	25 tests   100 tests	500331   500332
		Brilliant Violet 650™	25 tests   100 tests	500333   500334
		Brilliant Violet 711™	25 tests   100 tests	500345   500346
		Brilliant Violet 785™	25 tests   100 tests	500347   500348
		FITC	100 tests   50 µg	500304   500305
		LEAF™	500 µg	500313
		Pacific Blue™	100 µg	500324
		PE	25 tests   100 tests	500306   500307
		PE/Cy7	25 tests   100 tests	500325   500326
		PE/Dazzle™ 594	25 tests   100 tests	500343   500344
		PerCP	25 tests   100 tests	500349   500350
		PerCP/Cy5.5	25 tests   100 tests	500321   500322
		Purified	50 µg   500 µg	500301   500302
		Purified (MaxPar® Ready)	100 µg	500339
IL-4	MP4-25D2	Alexa Fluor® 488	100 tests	500817
		Alexa Fluor® 647	100 tests	500818
		APC	25 tests   100 tests	500811   500812
		APC/Cy7	25 tests   100 tests	500833   500834
		Biotin	50 µg   500 µg	500803   500804
		Brilliant Violet 421™	25 tests   100 tests	500825   500826
		Brilliant Violet 605™	25 tests   100 tests	500827   500828
		FITC	100 tests   50 µg	500806   500807
		LEAF™	50 µg   500 µg	500814   500815
		PE	25 tests   50 µg	500808   500810
		PE/Cy7	25 tests   100 tests	500823   500824
		PE/Dazzle™ 594	25 tests   100 tests	500831   500832
		PerCP/Cy5.5	25 tests   100 tests	500821   500822
		Purified	500 µg	500802
		Purified (MaxPar® Ready)	100 µg	500829
IL-4	8D4-8	Alexa Fluor® 488	100 tests	500710
		Alexa Fluor® 647	100 tests	500712
		APC	25 tests   100 tests	500713   500714
		LEAF™	50 µg   500 µg	500706   500707
		PE	25 tests   100 tests	500703   500704
		50 µg	500705	
IL-6	MQ2-39C3	Purified	50 µg   500 µg	500701   500702
IL-6	MQ2-13A5	Biotin	50 µg   500 µg	501201   501202
		Purified	500 µg	501204
		APC	100 tests	501112
		FITC	25 tests   100 tests	501103   501104
		LEAF™	50 µg   500 µg	501109   501110

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
		Pacific Blue™	25 tests   100 tests	501113   501114			Purified (MaxPar® Ready)	100 µg	512331
		PE	25 tests   100 tests	501106   501107	IL-17F	6B9.H8	Purified	100 µL	830201
		PE/Cy7	25 tests   100 tests	501119   501120	IL-18	KU18-81	Purified	100 µg	517302
		PerCP/Cy5.5	25 tests   100 tests	501117   501118	LAP (TGF-β1)	TW4-6H10	APC	25 tests   100 tests	349705   349706
		Purified	50 µg   500 µg	501101   501102			Biotin	50 µg   500 µg	349707   349708
		Purified (MaxPar® Ready)	100 µg	501115			PE	25 tests   100 tests	349703   349704
IL-8	BH0840	Biotin	500 µg	514704	LAP (TGF-β1)	TW4-2F8	Purified	100 µg	349702
IL-8	BH0814	FITC	100 tests	514604			APC	25 tests   100 tests	349607   349608
		PerCP	100 tests	514606			Brilliant Violet 421™	25 tests	349613
		Purified	50 µg   500 µg	514601   514602			FITC	25 tests   100 tests	349605   349606
IL-8	H8A5	Purified	50 µg   500 µg	511501   511502			PE	25 tests   100 tests	349603   349604
IL-8	E8N1	Alexa Fluor® 488	25 tests   100 tests	511411   511412			PE/Cy7	100 tests	349610
		APC	100 tests	511410			PerCP/Cy5.5	25 tests   100 tests	349611   349612
		Biotin	50 µg   500 µg	511403   511404			Purified	100 µg	349602
		FITC	100 tests	511406	LRP2	CD7D5	Purified	100 µL	826901
		PE	100 tests	511408	LRRK2	MC028.83.76.242	Purified	100 µL	808201
		PE/Cy7	25 tests   100 tests	511415   511416	LRRK2	8G10	Purified	100 µL	844401
		Purified	500 µg	511402	LRRK2 (NH2 terminus)	N138/6	Purified	100 µL	818901
IL-10	JES3-19F1	APC	25 tests   100 tests	506806   506807	LT-α (TNF-β)	359-81-11	Biotin	500 µg	503104
		LEAF™	500 µg	506810	LT-α (TNF-β)	359-238-8	PE	25 µg	503105
		PE	100 tests	506804	MMP1	M4110F03	Purified	500 µg	503004
		Purified	50 µg   500 µg	506801   506802	MMP1	F15P3B6	Purified	500 µg	503002
IL-10	JES3-12G8	Biotin	50 µg   500 µg	501501   501502	MMP2	M6308B04	Purified	100 µg	675702
		Purified	500 µg   50 µg	501504   501505	MMP2	M6303D01	Alexa Fluor® 594	100 µg	634702
IL-10	JES3-9D7	Alexa Fluor® 488	100 tests   25 tests	501411   501413			Purified	100 µg	679904
		Alexa Fluor® 647	100 tests   25 tests	501412   501414	MMP3	M4405F10	Purified	100 µg	679902
		APC	25 tests   100 tests	501409   501410	MMP3	F36P1B4	Purified	100 µg	679202
		Brilliant Violet 421™	25 tests	501421	MMP9	M2101G05	Purified	100 µg	634902
		LEAF™	50 µg   500 µg	501406   501407	MMP-9	L51/82	Purified	100 µL	681802
		PE	25 tests   100 tests	501403   501404			Purified	100 µL	819701
		PE/Cy7	25 tests   100 tests	501419   501420	Nur77	1E10A15	Alexa Fluor® 594	100 µg	819701
		PE/Dazzle™ 594	25 tests   100 tests	501425   501426			Purified	25 µg   100 µg	653504
		PerCP/Cy5.5	25 tests   100 tests	501417   501418	PAR-2	SAM11	Purified	100 µL	653501   653502
		Purified	50 µg   500 µg	501401   501402	PARIS (ZNF746)	N196/16	Purified	100 µL	817201
		Purified (MaxPar® Ready)	100 µg	501423	Parkin	Prk 109	Purified	200 µL	820601
IL-13	Poly5020	Biotin	4 Plates	502001	Parkin	Prk 8	Purified	200 µL   500 µL	807601
IL-13	JES10-5A2	APC	100 tests   50 µg	501907   501908	PINK1	N4/15	Purified	100 µL	808501   808502
		Brilliant Violet 421™	25 tests   100 tests	501915   501916	PINK1	SE1.D8	Purified	100 µL	808503
		LEAF™	50 µg   500 µg	501909   501910	PINK1	DU46-1.1	Purified	100 µg	832901
		PE	25 tests	501903	Podoplanin (Lymphatic Endothelial Marker)	D2-40	Purified	25 µg   100 µg	834801
		PE/Cy7	25 tests   100 tests	501913   501914			Purified	100 µL	846202
		PerCP/Cy5.5	100 tests   50 µg	501911   501912	S100A4	S100A4	Tissue Culture Supernatant	100 µL   1 ml   6 ml	916601   916602
		Purified	50 µg   500 µg	501901   501902	S100A4	NJ-4F3-D1	Purified	250 µL	916603   916604
IL-17A	Poly5189	Biotin	50 µg	518902			APC	25 tests   100 tests	810101
IL-17A	BL23	Purified	500 µg	512702			FITC	25 tests   100 tests	370005   370006
IL-17A	BL168	Alexa Fluor® 488	25 tests   100 tests	512307   512308			PE	25 tests   100 tests	370007   370008
		Alexa Fluor® 647	25 tests   100 tests	512309   512310			PerCP/Cy5.5	25 tests   100 tests	370003   370004
		Alexa Fluor® 700	25 tests   100 tests	512317   512318	S100B	11C12E12	Purified	100 µg	370009   370010
		APC	25 tests   100 tests	512333   512334	SMAD6	P85H3	Purified	100 µg	370002
		APC/Cy7	25 tests   100 tests	512319   512320	TGF-β1	21C11	Purified	100 µg	681402
		Brilliant Violet 421™	25 tests   100 tests	512321   512322	TGF-β1	19D8	Biotin	50 µg	525301
		Brilliant Violet 510™	25 tests   100 tests	512329   512330			LEAF™	50 µg   500 µg	521705
		Brilliant Violet 570™	25 tests   100 tests	512323   512324					521703   521704
		Brilliant Violet 605™	25 tests   100 tests	512325   512326					
		Brilliant Violet 711™	25 tests   100 tests	512327   512328					
		Brilliant Violet 785™	25 tests   100 tests	512337   512338					
		FITC	25 tests   100 tests	512303   512304					
		Pacific Blue™	25 tests   100 tests	512311   512312					
		PE	25 tests   100 tests	512305   512306					
		PE/Cy7	25 tests	512315					
		PE/Dazzle™ 594	25 tests   100 tests	512335   512336					
		PerCP/Cy5.5	25 tests   100 tests	512313   512314					
		Purified	50 µg   500 µg	512301   512302					

## Neuroinflammation Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.
TNF-α	MAb11	Alexa Fluor® 488	100 tests   25 tests	502915   502917
		Alexa Fluor® 647	100 tests	502916
		Alexa Fluor® 700	25 tests   100 tests	502927   502928
		APC	100 tests   50 µg	502912   502913
		APC/Cy7	25 tests   100 tests	502943   502944
		Biotin	50 µg   500 µg	502903   502904
		Brilliant Violet 421™	25 tests   100 tests	502931   502932
		Brilliant Violet 510™	25 tests   100 tests	502949   502950
		Brilliant Violet 605™	25 tests   100 tests	502935   502936
		Brilliant Violet 650™	25 tests   100 tests	502937   502938
		Brilliant Violet 711™	25 tests   100 tests	502939   502940
		Brilliant Violet 785™	25 tests   100 tests	502947   502948
		FITC	100 tests	502906
		LEAF™	500 µg	502922
		Pacific Blue™	100 µg	502920
		PE	25 tests   100 tests	502908   502909
		PE/Cy7	25 tests   100 tests	502929   502930
		PE/Dazzle™ 594	25 tests   100 tests	502945   502946
		PerCP	25 tests   100 tests	502923   502924
		PerCP/Cy5.5	25 tests   100 tests	502925   502926
		Purified	50 µg   500 µg	502901   502902
		Purified (MaxPar® Ready)	100 µg	502941
TNF-α	MAb1	LEAF™	50 µg   500 µg	502803   502804
		Purified	50 µg   500 µg	502801   502802
TNF-α	TNF 104C	Purified	250 µL	901201
TRAF6	T2-1SC	Purified	25 µg   100 µg	654501   654502
TREM-2 (CD354)	6E9	Purified	1 ml	824801

## Neuroinflammation Recombinant Proteins

Description	Size	Cat. No.
Recombinant Human Arginase I (carrier-free)	10 µg   25 µg   100 µg 500 µg	552502   552504   552506 552508
Recombinant Human CCL2 (MCP-1) (Animal-Free)	20 µg	716504
Recombinant Human CCL2 (MCP-1) (carrier-free)	10 µg   25 µg   100 µg 500 µg	571402   571404   571406 571408
Recombinant Human CCL3 (MIP-1α) (carrier-free)	10 µg   25 µg   100 µg	582802   582804   582806
Recombinant Human CCL4 (MIP-1β) (carrier-free)	10 µg   25 µg   100 µg	554702   554704   554706
Recombinant Human CCL5 (RANTES) (Animal-Free)	20 µg	717004
Recombinant Human CCL5 (RANTES) (carrier-free)	10 µg   25 µg   100 µg 500 µg	580202   580204   580206 580208
Recombinant Human CCL5 (RANTES) (carrier-free)	4 pack	580209
Recombinant Human CCL8 (MCP-2) (carrier-free)	10 µg   25 µg   100 µg 500 µg	581602   581604   581606 581608
Recombinant Human CCL8 (MCP-2) (ELISA Std.)	4 pack	558309
Recombinant Human CCL11 (Eotaxin) (carrier-free)	10 µg   25 µg   100 µg 500 µg	583002   583004   583006 583008
Recombinant Human CXCL1 (GRO-α) (carrier-free)	10 µg   25 µg   100 µg 500 µg	574402   574404   574406 574408
Recombinant Human MMP-1 (carrier-free)	10 µg   25 µg   100 µg 500 µg	592902   592904   592906 592908
Recombinant Human MMP-2 (carrier-free)	10 µg   25 µg   100 µg 500 µg	554302   554304   554306 554308
Recombinant Human MMP-3 (carrier-free)	10 µg   25 µg   100 µg 500 µg	594702   594704   594706 594708
Recombinant Human MMP-8 (carrier-free)	10 µg   25 µg   100 µg	556102   556104   556106
Recombinant Human MMP-9 (carrier-free)	10 µg   25 µg   100 µg	550502   550504   550506
Recombinant Human MMP-9 (dimer, carrier-free)	10 µg   25 µg   100 µg	551102   551104   551106
Recombinant Mouse CCL2 (MCP-1) (carrier-free)	10 µg   25 µg   100 µg	578402   578404   578406
Recombinant Mouse CCL2 (MCP-1) (ELISA Std.)	4 pack	576509
Recombinant Mouse CCL3 (MIP-1α) (carrier-free)	10 µg   25 µg	593802   593804
Recombinant Mouse CCL4 (MIP-1β) (carrier-free)	10 µg   25 µg   100 µg	554602   554604   554606
Recombinant Mouse CCL5 (RANTES) (carrier-free)	10 µg   25 µg   100 µg 500 µg	594202   594204   594206 594208
Recombinant Mouse CCL8 (MCP-2) (carrier-free)	10 µg   25 µg   100 µg 500 µg	581702   581704   581706 581708
Recombinant Mouse CCL11 (Eotaxin) (carrier-free)	10 µg   25 µg   100 µg 500 µg	582902   582904   582906 582908
Recombinant Mouse CXCL1 (KC) (carrier-free)	10 µg   25 µg   100 µg 500 µg	573702   573704   573706 573708
Recombinant Mouse MMP-2 (carrier-free)	10 µg   25 µg	554402   554404
Recombinant Mouse MMP-3 (carrier-free)	10 µg   25 µg   100 µg 500 µg	552702   552704   552706 552708
Recombinant Mouse MMP-9 (Gelatinase B) (carrier-free)	10 µg	590502
Recombinant Mouse MMP-9 (Gelatinase B) (carrier-free)	10 µg   25 µg	755202   755204
Recombinant Mouse E-Selectin (CD62E)-Fc Chimeric (carrier-free)	10 µg   25 µg	755502   755504

## Neuroinflammation Kits

Description	Size	Cat. No.
MojoSort™ Human CD14 Selection Kit	20 tests   200 tests	480025   480026

## Neuroinflammation ELISAs and Multiplex Assays

Description	Size	Cat. No.
Human CCL5 (RANTES) ELISA MAX™ Deluxe	5 Plates   10 Plates 20 Plates	440804   440805   440806
LEGEND MAX™ Human CCL5 (RANTES) ELISA Kit with Pre-coated Plates	1 Pre-coated Plate	440807   440808
Human CCL8 (MCP-2) ELISA MAX™ Deluxe	5 Pre-coated Plates 5 Plates   10 Plates 20 Plates	442204   442205   442206
LEGEND MAX™ Human CCL8 (MCP-2) ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	442207   442208
LEGENDplex™ Human Proinflammatory Chemokine Panel	100 tests	740003
LEGEND MAX™ Human C5a ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	442107   442108
LEGEND MAX™ Human CD31 (PECAM-1) ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates 5 Plates   10 Plates 20 Plates	443607   443608
Human MCP-1/CCL2 ELISA MAX™ Deluxe	438804   438805   438806	
LEGEND MAX™ Human MCP-1/CCL2 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	438807   438808
LEGENDplex™ Mouse Proinflammatory Chemokine Panel (13-plex) with Filter Plate	100 tests	740007
LEGEND MAX™ Human MMP-9 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	440707   440708
Mouse MCP-1 ELISA MAX™ Standard	5 plates   10 Plates 20 Plates	432701   432702   432703
Mouse MCP-1 ELISA MAX™ Deluxe	5 plates   10 Plates 20 Plates	432704   432705   432706
LEGEND MAX™ Mouse MCP-1/CCL2 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	432707   432708
LEGEND MAX™ Mouse CCL11 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	443907   443908
LEGEND MAX™ Rat CCL11 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	444007   444008
LEGENDplex™ NHP Chemokine/Cytokine Panel with filter plate	100 tests	740317
LEGENDplex™ NHP Chemokine/Cytokine Panel with V-bottom plate	100 tests	740388

# Synaptic Biology

Healthy synaptic connections are essential for brain functions, including memory formation. Impairment of synaptic activity and subsequent synaptic degradation have been linked to neuronal loss in neurodegenerative diseases. BioLegend provides a large portfolio of products to investigate synaptic biology, including the mechanisms that lead to dysfunction and synaptic loss.

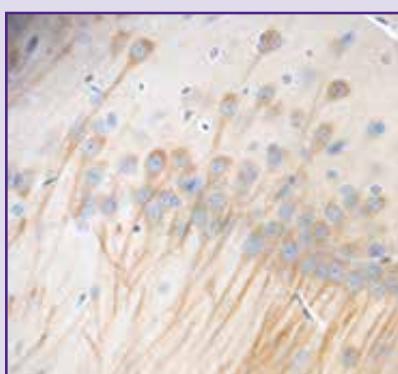
## Postsynaptic Protein Antibodies

Specificity	Clone	Format	Size	Cat. No.
ADAM22	N46/30	Purified	100 µL	818401
ADAM22	N57/2	Purified	100 µL	831001
ASIC1	N271/44	Purified	100 µL	833501
CaMKIV	3E5.E8	Purified	100 µL	830101
CD271 (NGFR)	ME20.4	Alexa Fluor® 647	25 tests   100 tests	345113   345114
		APC	25 tests   100 tests	345107   345108
		FITC	25 tests   100 tests	345103   345104
		PE	25 tests   100 tests	345105   345106
		PE/Cy7	25 tests   100 tests	345109   345110
		PerCP/Cy5.5	25 tests   100 tests	345111   345112
		Purified	25 µg   100 µg	345101   345102
CD271 (p75NTR)	Poly18397	Serum	200 µL	839701
CD271 (p75NTR)	NGFR5	Purified	100 µL	818201
CDK5	P84E4	Purified	100 µg	684502
Dopamine D3 receptor	N331/19	Purified	100 µL	827501
Dopamine Receptor D1 (DRD1)	L205G1	PE	25 tests   100 tests	366403   366404
EGFR	AY13	Alexa Fluor® 488	25 tests   100 tests	352907   352908
		Alexa Fluor® 594	100 µg	352916
		APC	25 tests   100 tests	352905   352906
		Brilliant Violet 421™	25 tests	352911
		PE	25 tests   100 tests	352903   352904
		PE/Cy7	25 tests   100 tests	352909   352910
		PerCP/Cy5.5	25 tests   100 tests	352913   352914
		Purified	25 µg   100 µg	352901   352902
EGFR Phosphorylated (Tyr1068)	Poly6563	Purified	200 µL	656302
ERK1	W15133A	Purified	100 µg	687002
ERK1/2 Phospho (Thr202/Tyr204)	4B11B69	Alexa Fluor® 488	25 tests   100 tests	675507   675508
		Alexa Fluor® 647	25 tests   100 tests 100 µL (20 Western blots)	675503   675504 675505
		Direct-Blot™		

Specificity	Clone	Format	Size	Cat. No.
ERK1/2 Phospho (Thr202/Tyr204)	6B8B69	Purified	100 µg	675502
		Alexa Fluor® 488	25 tests   100 tests	369507   369508
		Alexa Fluor® 647	25 tests   100 tests	369503   369504
		Brilliant Violet 421™	25 tests   100 tests	369509   369510
		PE	25 tests   100 tests	369505   369506
		PE/Cy5	25 tests   100 tests	369513   369514
		PerCP/Cy5.5	25 tests   100 tests	369511   369512
GABA(B)R2	N81/2	Purified	100 µL	820501
GABBR1	N93A/49	Purified	100 µL	820801
GABBR2	N81/37	Purified	100 µL	
GABRA1	N95/35	Purified	100 µL	832301
GABRA4	Poly28229	Purified	100 µL	822901
GABRB3	N87/25	Purified	100 µL	818501
GABRD	N151/3	Purified	100 µL	827601
GluR1	N355/1	Purified	100 µL	819801
GluR1 Phospho (Ser845)	Poly28025	Purified	150 µL	802501
GluR2	L21/32	Purified	100 µL	810501
IP3R1 (Complex with Homer and mGluR)	L24/18	Purified	100 µL	817701
KCC2	N1/12	Purified	100 µL	821701
KCC2	N1/66	Purified	100 µL	827901
KCNA5	2D10.D6	Purified	100 µL	814901
LRP4 (NH2 terminus)	N207/27	Purified	100 µL	832201
MAGUK (pan reactive)	K28/86	Purified	100 µL	817801
MAP6 (STOP)	STOP	Purified	100 µL	824701
nAChR, α1, α3 & α5 Subunits	210	Ascites	500 µL	838301
nAChR, α1-Subunit	61	Ascites	500 µL	839101
nAChR, α4-Subunit	299	Ascites	500 µL	839201

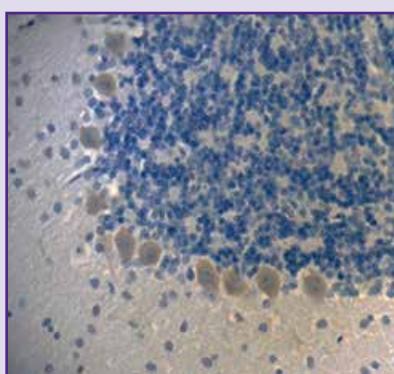
Learn more at: [biolegend.com/synaptic\\_function](http://biolegend.com/synaptic_function)

MAGUK



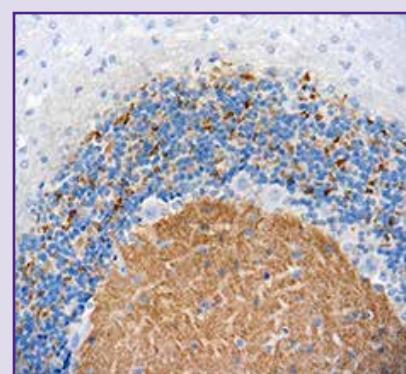
IHC staining of anti-MAGUK antibody (clone K28/86) on formalin-fixed paraffin-embedded rat hippocampal tissue.

PSD-93



IHC staining of anti-PSD-93 antibody (clone N18/28) on formalin-fixed paraffin-embedded rat brain tissue.

VGlut1



IHC staining of anti-VGlut1 antibody (clone N28/9) on formalin-fixed paraffin-embedded rat brain.

## Postsynaptic Protein Antibodies

Specificity	Clone	Format	Size	Cat. No.
nAChR, $\alpha$ 7-Subunit	319	Ascites	500 $\mu$ L	838401
nAChR, $\alpha$ 7-Subunit	306	Ascites	500 $\mu$ L	836701
nAChR, $\beta$ 2-Subunit	270	Ascites	500 $\mu$ L	838501
nAChR, $\gamma$ -Subunit	66	Ascites	500 $\mu$ L	838601
Neurogranin (NRGN)	NG2	Purified	100 $\mu$ g	845602
Neurogranin (NRGN)	NG7	Purified	100 $\mu$ g	845702
NMDAR1	N308/48	Purified	100 $\mu$ L	818601
NMDAR1	R1JHL	Purified	15 $\mu$ g	828201
NMDAR2A	N327/95	Purified	100 $\mu$ L	832101
NMDAR2A	N327A/38	Purified	100 $\mu$ L	832401
NMDAR2B	N59/20	Purified	100 $\mu$ L	832501
NMDAR2B	N59/36	Purified	100 $\mu$ L	818701
Nogo-B	Poly5187	Biotin	50 $\mu$ g	518703
		Purified	100 $\mu$ g	518701
Notch 1	N253/32	Purified	100 $\mu$ L	819101
Notch 1	mN1A	Biotin	25 $\mu$ g   100 $\mu$ g	629103   629104
		PE	25 $\mu$ g   100 $\mu$ g	629105   629106
		Purified	25 $\mu$ g   100 $\mu$ g	629101   629102
Notch 1	HMN1-12	Alexa Fluor® 647	25 $\mu$ g	130611
		APC	25 $\mu$ g	130613
		Biotin	50 $\mu$ g	130605
		Brilliant Violet 421™	125 $\mu$ L	130615
		PE	50 $\mu$ g   200 $\mu$ g	130607   130608
		Purified	500 $\mu$ g	130602
Notch 1	MHN1-519	APC	25 tests   100 tests	352107   352108
		LEAF™	500 $\mu$ g	352104
		PE	25 tests   100 tests	352105   352106
		Purified	100 $\mu$ g	352102
Notch 1	N253/32	Purified	100 $\mu$ L	819101
Notch1 $\beta$	5B6	Purified	100 $\mu$ g	845202
Notch1 $\beta$	6B11/Notch	Purified	100 $\mu$ g	845302
Notch1 $\beta$	5C12	Purified	100 $\mu$ g	845402
PICK1	L20/8	Purified	100 $\mu$ L	830901
PP3CA (CnA1) (PP2B)	2E2.D11	Purified	100 $\mu$ L	817601
PSD-93 (Chapsyn-100)	N18/30	Purified	100 $\mu$ L	821201
PSD-93 (Chapsyn-110)	N18/28	Purified	100 $\mu$ L	818301
PSD95	K28/43	Purified	100 $\mu$ L	810401
PSD95	K28/74	Purified	100 $\mu$ L	810301
PYK2	P85E2D5	Purified	100 $\mu$ g	685002
RGS14	N133/21	Purified	100 $\mu$ L	821801
RhoG	1F3 B3 E5	Purified	100 $\mu$ L	814701
SAP102	N19/2	Purified	100 $\mu$ L	832001
SAP97	K64/15	Purified	100 $\mu$ L	830701
SAPAP (pan reactive)	N127/31	Purified	100 $\mu$ L	832601
SAPAP1	N238/31	Purified	100 $\mu$ L	831801
Syntrophin	1351	Purified	100 $\mu$ g	845102
		Ultra-LEAF™	100 $\mu$ g	845103
TARP $\gamma$ 2 (Stargazin)	N245/1	Purified	100 $\mu$ L	827401
Thorase (Atad1) (GluR2 endocytosis)	N125/10	Purified	100 $\mu$ L	820001
WAVE1 (Actin-Interacting protein)	K91/36	Purified	100 $\mu$ L	817901

## Presynaptic Protein Antibodies

Specificity	Clone	Format	Size	Cat. No.
$\alpha$ -Spectrin (SPTAN1)	1C2B10C3C11	Purified	100 $\mu$ g	671902
$\alpha$ -Spectrin (SPTAN1)	2A5A7H8	Purified	100 $\mu$ g	671802
$\alpha$ -Spectrin (SPTAN1)	8B8D10F11	Purified	100 $\mu$ g	671602
Ankyrin-B	N105/13	Purified	100 $\mu$ L	821401
Ankyrin-B	N105/17	Purified	100 $\mu$ L	821501
ASIC1 (brain sodium channel 2)	N271/44	Purified	100 $\mu$ L	833501
Bin-1 (Amphiphysin II)	2F11/Bin-1	Purified	1 ml	917002
CASK	K56A/50	Purified	100 $\mu$ L	830601
Doc2b (SNARE-related protein0	N150/21	Purified	100 $\mu$ L	833201
Dopamine Transporter, EL2	Poly28163	Purified	100 $\mu$ L	816301
Dynamin-1	D5	Purified	100 $\mu$ L	817301
EGFR	AY13	Alexa Fluor® 488	25 tests   100 tests	352907   352908
		Alexa Fluor® 594	100 $\mu$ g	352916
		APC	25 tests   100 tests	352905   352906
		Brilliant Violet 421™	25 tests	352911
		PE	25 tests   100 tests	352903   352904
		PE/Cy7	25 tests   100 tests	352909   352910
		PerCP/Cy5.5	25 tests   100 tests	352913   352914
		Purified	25 $\mu$ g   100 $\mu$ g	352901   352902
EGFR Phosphorylated (Tyr1068)	Poly6563	Purified	200 $\mu$ L	656302
GRK (pan-reactive)	N145/20	Purified	100 $\mu$ L	833101
p38 MAPK Phospho (Thr180/Tyr182)	Poly29035	Purified	100 $\mu$ L	903501
SNAP-25	SMI 81	Purified	100 $\mu$ g	836304
SNAP-25	SP12	Purified	100 $\mu$ L	805001
Stonin-2 (Involved in endocytosis)	N346/9	Purified	100 $\mu$ L	804701
SVOP (Synaptic Vesicle 2-related protein)	N356/9	Purified	100 $\mu$ L	819901
Synaptobrevin	SP11	Purified	100 $\mu$ L	805101
Synaptobrevin (VAMP)	SP10	Ascites	500 $\mu$ L	837001
Synaptophysin	SP17	Ascites	500 $\mu$ L	837101
Synaptotagmin-7	3C2D4	Biotin	50 $\mu$ L	527705
Synaptotagmin-9	4E7E12H7B12	Purified	100 $\mu$ g	527702
Synaptotagmin-9	3E10H10D9	Purified	100 $\mu$ g	527802
Synaptotagmin-11	N277/7	Purified	100 $\mu$ L	820401
Syntaxin	SP8	Purified	100 $\mu$ L	827001
Tryptophan Hydroxylase	Poly28164	Purified	100 $\mu$ L	816401
Tyrosine Hydroxylase	2/40/15	Purified	100 $\mu$ L	818001
VGlut1	N28/9	Purified	100 $\mu$ L	821301
VGlut2	N29/29	Purified	100 $\mu$ L	832801
VGlut3	3D11	Purified	100 $\mu$ g	527602
WAVE1 (Actin-interacting protein)	K91/36	Purified	100 $\mu$ L	817901

## Adhesion Molecule Antibodies

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
AMIGO-1	L86/33	Purified	100 µL	827301			Brilliant Violet 711™	25 tests   100 tests	362541   362542
AMIGO-1	L86/36	Purified	100 µL	804801			Brilliant Violet 785™	25 tests   100 tests	362549   362550
AMIGO-1	L86A/37	Purified	100 µL	822101			FITC	25 tests   100 tests	362545   362546
Brevican	N294A/6	Purified	100 µL	820101			Pacific Blue™	25 tests   100 tests	362519   362520
Cadherin 11	16G5	Alexa Fluor® 594	100 µg	368710			PE	25 tests   100 tests	362507   362508
		APC	25 tests   100 tests	368705   368706			100 µg		362524
		PE	25 tests   100 tests	368703   368704			25 tests   100 tests		362515   362516
		PE/Cy7	25 tests   100 tests	368707   368708			PE/Cy5		362509   362510
		Purified	100 µg	368702			PE/Cy7		
CD29 (Integrin β1)	P5D2	Ascites	100 µL	921301			PE/Dazzle™ 594	25 tests   100 tests	362543   362544
CD49b (Integrin α2)	P1E6	Purified	100 µL	910901			PerCP	25 tests   100 tests	362525   362526
CD49c (integrin α3)	ASC-1	APC	100 tests	343808			PerCP/Cy5.5	25 tests   100 tests	362505   362506
		PE	25 tests	343803			Purified	100 µg	362502
		Purified	100 µg	343802			Ultra-LEAF™	500 µg	362548
CD49c (Integrin α3)	P1B5	Ascites	100 µL	921601			Alexa Fluor® 488	100 tests	304611
CD49d	P4C2	Purified	100 µL	910101			Alexa Fluor® 647	100 tests	304612
CD49E (Integrin α5)	P1D6	Purified	100 µg	921704			APC	100 tests	304610
CD51 (Integrin αvβ5)	P1F6	Alexa Fluor® 488	25 tests   100 tests	920009   920010			Biotin	100 µg	304620
		Alexa Fluor® 647	25 tests   100 tests	920005   920006			FITC	25 tests   100 tests	304603   304604
		Ascites	100 µL	920001			LEAF™	500 µg	304622
		PE	25 tests   100 tests	920007   920008			Pacific Blue™	100 µg   100 tests	304624   304629
		Purified	100 µg	920004			PE	25 tests   100 tests	304605   304606
CD56 (NCAM)	HCD56	Alexa Fluor® 488	25 tests   100 tests	318311   318312			PE/Cy5	25 tests   100 tests	304607   304608
		Alexa Fluor® 647	25 tests   100 tests	318313   318314			PE/Cy7	100 tests	304628
		Alexa Fluor® 700	25 µg   100 µg	318315   318316			PerCP/Cy5.5	25 tests   100 tests	304625   304626
		APC	25 tests   100 tests	318309   318310			Purified	25 µg   100 µg	304601   304602
		APC/Cy7	25 tests   100 tests	318331   318332			Alexa Fluor® 488	25 tests   100 tests	318311   318312
		Biotin	25 µg   100 µg	318319   318320			Alexa Fluor® 647	25 tests   100 tests	318313   318314
		Brilliant Violet 421™	25 tests   100 tests	318327   318328			Alexa Fluor® 700	25 µg   100 µg	318315   318316
		Brilliant Violet 510™	25 tests   100 tests	318339   318340			APC	25 tests   100 tests	318309   318310
		Brilliant Violet 570™	25 tests   100 tests	318329   318330			APC/Cy7	25 tests   100 tests	318331   318332
		Brilliant Violet 605™	25 tests   100 tests	318333   318334			Biotin	25 µg   100 µg	318319   318320
		Brilliant Violet 650™	25 tests   100 tests	318343   318344			Brilliant Violet 421™	25 tests   100 tests	318327   318328
		Brilliant Violet 711™	25 tests   100 tests	318335   318336			Brilliant Violet 510™	25 tests   100 tests	318339   318340
		FITC	25 tests   100 tests	318303   318304			Brilliant Violet 570™	25 tests   100 tests	318329   318330
		LEAF™	500 µg	318324			Brilliant Violet 605™	25 tests   100 tests	318333   318334
		Pacific Blue™	25 µg   100 µg	318325   318326			Brilliant Violet 650™	25 tests   100 tests	318343   318344
		PE	25 tests   100 tests	318305   318306			Brilliant Violet 711™	25 tests   100 tests	318335   318336
		PE/Cy5	100 tests	318308			FITC	25 tests   100 tests	318303   318304
		PE/Cy7	25 tests   100 tests	318317   318318			LEAF™	500 µg	318324
		PE/Dazzle™ 594	25 tests   100 tests	318347   318348			Pacific Blue™	25 µg   100 µg	318325   318326
		PerCP	25 tests   100 tests	318341   318342			PE	25 tests   100 tests	318305   318306
		PerCP/Cy5.5	25 tests   100 tests	318321   318322			PE/Cy5	100 tests	318308
		Purified	100 µg	318302			PE/Cy7	25 tests   100 tests	318317   318318
		Purified (MaxPar® Ready)	100 µg	318345			PE/Dazzle™ 594	25 tests   100 tests	318347   318348
CD56 (NCAM)	5.1H11	Alexa Fluor® 488	25 tests   100 tests	362517   362518			PerCP	25 tests   100 tests	318341   318342
		Alexa Fluor® 647	25 tests   100 tests	362513   362514			PerCP/Cy5.5	25 tests   100 tests	318321   318322
		Alexa Fluor® 700	25 tests   100 tests	362521   362522			Purified	100 µg	318302
		APC	25 tests   100 tests	362503   362504			Purified (MaxPar® Ready)	100 µg	318345
		APC/Cy7	25 tests   100 tests	362511   362512			CD56 (NCAM)	39D5	PE
		APC/Fire™ 750	25 tests   100 tests	362553   362554			CD62P (P-selectin)	RP-2	Purified
		Biotin	25 µg   100 µg	362535   362536			CD62P (P-selectin)	AK4	Alexa Fluor® 488
		Brilliant Violet 421™	25 tests   100 tests	362551   362552					Alexa Fluor® 647
		Brilliant Violet 510™	25 tests   100 tests	362533   362534					100 tests
		Brilliant Violet 570™	25 tests   100 tests	362539   362540					100 tests
		Brilliant Violet 605™	25 tests   100 tests	362537   362538					100 tests
		Brilliant Violet 650™	25 tests   100 tests	362531   362532					100 tests

## Adhesion Molecule Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.	
CD62P (P-selectin)	RMP-1	APC	25 µg   100 µg	148303   148304	CD304 (Neuropilin-1)	12C2	Alexa Fluor® 647	25 tests   100 tests	354517   354518	
		PE	25 µg   100 µg	148305   148306			APC	25 tests   100 tests	354505   354506	
		PE/Cy7	25 µg   100 µg	148309   148310			Biotin	100 µg	354522	
		Purified	50 µg   500 µg	148301   148302			Brilliant Violet 421™	25 tests   100 tests	354513   354514	
	BMA-12	Ultra-LEAF™	50 µg   500 µg	148307   148308			Brilliant Violet 510™	25 tests	354515	
		APC	25 µg   100 µg	147605   147606			FITC	25 tests   100 tests	354511   354512	
		FITC	25 µg   100 µg	147607   147608			Pacific Blue™	25 tests   100 tests	354519   354520	
		PE	25 µg   100 µg	147603   147604			PE	25 tests   100 tests	354503   354504	
CD100 (SEMA4D)		Purified	25 µg   100 µg	147601   147602			PE/Cy7	25 tests   100 tests	354507   354508	
OX-62	Alexa Fluor® 488	100 µg	205507	PerCP/Cy5.5			25 tests   100 tests	354509   354510		
	Alexa Fluor® 647	100 µg	205509	Purified			100 µg	354502		
	Biotin	100 µg	205503	CD324 (E-Cadherin)	67A4	Alexa Fluor® 488	100 tests	324110		
	CD103 (Integrin αE)		FITC			100 µg	205505	Alexa Fluor® 594	100 µg	324118
			Alexa Fluor® 488			100 tests	350208	Alexa Fluor® 647	100 tests	324112
			Alexa Fluor® 647			25 tests   100 tests	350209   350210	APC	25 tests   100 tests	324107   324108
			APC			25 tests   100 tests	350215   350216	FITC	25 tests   100 tests	324103   324104
			Biotin			100 µg	350220	PE	25 tests   100 tests	324105   324106
			Brilliant Violet 421™			25 tests   100 tests	350213   350214	PE/Cy7	25 tests   100 tests	324115   324116
			Brilliant Violet 605™			25 tests   100 tests	350217   350218	PerCP/Cy5.5	25 tests   100 tests	324113   324114
			Brilliant Violet 711™			25 tests   100 tests	350221   350222	Purified	25 µg   100 µg	324101   324102
CD103 (Integrin αE)	Ber-ACT8	FITC	25 tests   100 tests	350203   350204	CD324 (E-Cadherin)	DECMA-1	Alexa Fluor® 594	100 µg	147306	
		PE	25 tests   100 tests	350205   350206			Alexa Fluor® 647	25 µg   100 µg	147307   147308	
		PE/Cy7	25 tests   100 tests	350211   350212			PE	25 µg   100 µg	147303   147304	
		Purified	100 µg	350202			PE/Cy7	25 µg   100 µg	147309   147310	
CD111 (Nectin-1)	R1.302	PE	100 tests	340404			Purified	25 µg   100 µg	147301   147302	
		Purified	100 µg	340402	CD325 (N-Cadherin)	13A9	Purified	100 µg	844702	
CD112 (Nectin-2)	TX31	APC	25 tests   100 tests	337411   337412			Ultra-LEAF™	100 µg	844703	
		PE	25 tests   100 tests	337409   337410	CD325 (N-Cadherin)	8C11	Alexa Fluor® 488	25 tests   100 tests	350809   350810	
		PE/Cy7	25 tests   100 tests	337413   337414			Alexa Fluor® 594	100 µg	350816	
		PerCP/Cy5.5	25 tests   100 tests	337415   337416			APC	25 tests   100 tests	350807   350808	
CD138 (Syndecan-1)	MI15	Purified	100 µg	337402			LEAF™	500 µg	350804	
		Alexa Fluor® 594	100 µg	356526			PE	100 tests   25 tests	350805   350806	
		Alexa Fluor® 647	25 tests   100 tests	356523   356524			PE/Cy7	25 tests   100 tests	350811   350812	
		Alexa Fluor® 700	25 tests   100 tests	356511   356512			PerCP/Cy5.5	25 tests   100 tests	350813   350814	
		APC	25 tests   100 tests	356505   356506			Purified	100 µg	350802	
		APC/Cy7	25 tests   100 tests	356527   356528			CD334 (FGFR4)	4FR6D3	324305   324306	
		Brilliant Violet 421™	25 tests   100 tests	356515   356516			Purified	100 µg	324302	
		Brilliant Violet 510™	25 tests   100 tests	356517   356518	CD340 (erbB2/HER-2)	24D2	Alexa Fluor® 488	100 tests	324410	
CD138 (Syndecan-1)		Brilliant Violet 605™	25 tests   100 tests	356519   356520			Alexa Fluor® 647	100 tests	324412	
		Brilliant Violet 711™	25 tests   100 tests	356521   356522			APC	25 tests   100 tests	324407   324408	
		FITC	25 tests   100 tests	356507   356508			Brilliant Violet 421™	100 tests	324420	
		PE	25 tests   100 tests	356503   356504			FITC	100 tests	324404	
		PE/Cy7	25 tests   100 tests	356513   356514			PE	25 tests   100 tests	324405   324406	
		PE/Dazzle™ 594	25 tests   100 tests	356529   356530			PE/Cy7	25 tests   100 tests	324413   324414	
		PerCP/Cy5.5	25 tests   100 tests	356509   356510			PerCP/Cy5.5	25 tests   100 tests	324415   324416	
		Purified	25 µg   100 µg	356501   356502			Purified	25 µg   100 µg	324401   324402	
CD144 (VE-cadherin)	BV13	Alexa Fluor® 647	25 µg   100 µg	138005   138006	EphA2	SHM16	PE	25 tests   100 tests	356803   356804	
		APC	25 µg   100 µg	138011   138012			Purified	25 µg   100 µg	356801   356802	
		Biotin	100 µg	138008			APC	25 tests   100 tests	324707   324708	
		Brilliant Violet 421™	50 µg	138013			Biotin	100 µg	324704	
CD171 (L1)	14.1	LEAF™	50 µg	138003			PE	25 tests   100 tests	324705   324706	
		PE	25 µg   100 µg	138009   138010			Purified	100 µg	324702	
		PE/Cy7	25 µg   100 µg	138015   138016			FGF-1-acidic	11A5C44	678602	
		Purified	50 µg   500 µg	138001   138002			FGF-3	W15075A	685102	
		Purified	1 ml	826701			FGF-4	2D1C57	677402	
		Ascites	500 µL	838101			FGF-basic	BHF15	514801   514802	
		PE	25 tests   100 tests	371603   371604			FGF-basic	JKFb-1	508601   508602	
		Purified	100 µg	371602			FGF-basic	JKFb-2	508702	
CD171 (L1CAM)	74-SH7	Purified	100 µg	686102	Integrin β7	F1B27	Integrin α9β1	Y9A2	351603	
		Purified	100 µg	686102			PE	25 tests   100 tests	351605   351606	
CD171 (L1CAM)	L1-OV198.5	Purified	100 µg	686102	Integrin β7	F1B27	Purified	100 µg	351602	
		Purified	100 µg	686102			FITC	100 µg	121010	
CD171 (L1CAM)	O92G9	Purified	100 µg	686102	Integrin β7	F1B27	LEAF™	50 µg	121003	
		Purified	100 µg	686102			PE	25 µg   100 µg	121005   121006	

Specificity	Clone	Format	Size	Cat. No.
Integrin β7	FIB504	PerCP/Cy5.5	25 µg   100 µg	121007   121008
		APC	25 tests   100 tests	321207   321208
		Biotin	50 µg	321209
		FITC	100 tests   50 µg	321212   321213
			500 µg	321214
		LEAF™	500 µg	321218
		PE	25 tests   100 tests	321203   321204
		PerCP/Cy5.5	25 tests   100 tests	321219   321220
		Purified	100 µg	321202
		APC	25 tests   100 tests	321207   321208
LPAM-1 (Integrin α4β7)	DATK32	Biotin	50 µg	321209
		FITC	100 tests   50 µg	321212   321213
			500 µg	321214
		LEAF™	500 µg	321218
		PE	25 tests   100 tests	321203   321204
		PerCP/Cy5.5	25 tests   100 tests	321219   321220
		Purified	100 µg	321202
		APC	25 µg   100 µg	120607   120608
		Biotin	50 µg   200 µg	120611   120612
		PE	50 µg   200 µg	120605   120606
Neuroligin-1	N97A/31	Purified	500 µg	120602
Neuroligin-3	N110/29	Purified	100 µL	822001
NrCAM	N343/26	Purified	100 µL	821601
p120 Catenin	2B12	Purified	100 µL	828301
Plexin B2	3E7	PE	50 µg   200 µg	145903   145904
SALM2 (LRFN1)	N52B/27	Purified	50 µg   500 µg	145901   145902
SEMA4A	5E3/SEMA4A	Purified	100 µL	819301
SynCAM4	N244/5	PE	25 µg   100 µg	148403   148404
α-E-Catenin	1G5	Purified	100 µg	148402
β Catenin 1 (CTNNB1)	12F7	Purified	100 µL	833301
γ-protocadherin (pan reactive)	N159/5	Ultra-LEAF™	25 µg   100 µg	844801   844802
γ-protocadherin A (pan reactive)	N144/32	Purified	100 µL	844803
γ-protocadherin-B2	N148/30	Ultra-LEAF™	100 µg	844603
		Purified	100 µL	844602
		Purified	100 µL	831701
		Purified	100 µL	819201
		Purified	100 µL	832701

## Transcription Factor Antibodies

Specificity	Clone	Format	Size	Cat. No.
c-Fos (Transcription Factor)	Poly6414	Purified	25 µL   100 µL	641401   641402
DUX4 (Transcription activator)	P2B1	Ascites	100 µL	910003
		Purified	100 µg	910005
ER81 (Transcription Factor)	Poly8404	Serum	100 µL	840401
FMRP (Transcriptional repressor)	6B8/FMRP	Purified	100 µL	834601
FMRP (Transcriptional repressor)	5C2	Purified	100 µL	834701
HOX C8 (Transcription Factor)	C952-12E			
Hoxb-1 (Transcription Factor)	Poly19081	Purified	100 µL	908101
KIN-28	Poly19249	Serum	200 µL	924901
Msx-1 (Transcriptional repressor)	4F11			
Pax-2 (Transcription Factor)	Poly19010	Purified	200 µL	901001
Pax-6 (Transcription Factor)	Poly19013	Purified	100 µL	901301
STAT3	4G4B45	Alexa Fluor® 594	100 µg	678003
		Direct-Blot™	100 µL (20 Western blots)	678005
		PE	25 tests   100 tests	678007   678008
		Purified	100 µg	678002
STAT3	Poly6246	Purified	50 µL (5 Western Blots)   200 µL (20 Western Blots)	624601   624602
STAT3 (phospho Tyr 705)	13A3-1	Alexa Fluor® 488	25 tests   100 tests	651005   651006
		Alexa Fluor® 647	25 tests   100 tests	651007   651008
		Brilliant Violet 421™	25 tests   100 tests	651009   651010
		Direct-Blot™	100 µL (20 Western blots)	651011
		PE	25 tests   100 tests	651003   651004
		PE/Cy5	25 tests   100 tests	651013   651014
		Purified	25 µg   100 µg	651001   651002

## Synaptic Biology ELISAs and Multiplex Assays

Description	Size	Cat. No.
Human FGF-basic ELISA MAX™ Deluxe	5 Plates   10 Plates 20 Plates	434311   434312   434313
Human FGF-basic ELISA MAX™ Deluxe	1 Pre-coated Plate 5 Pre-coated Plates	434309   434310
LEGENDplex™ Human Growth Factor Panel	100 tests	740180
LEGEND MAX™ Human Soluble Nogo-B ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	432807   432808
LEGEND MAX™ Human sVCAM-1/CD106 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	440307   440308
LEGENDplex™ NHP Growth Factor Panel with Filter Plate	100 tests	740217
LEGENDplex™ NHP Growth Factor Panel with V-bottom Plate	100 tests	740386



## Synaptic Biology Recombinant Proteins

Description	Size	Cat. No.	Description	Size	Cat. No.
Recombinant Human Activin A (Animal-Free)	10 µg	718502	Recombinant Human GDNF (Animal-Free)	10 µg	711002
Recombinant Human Activin A (carrier-free)	10 µg   25 µg   100 µg 500 µg	592002   592004   592006 592008	Recombinant Human GDNF (carrier-free)	2 µg   10 µg	760401   760402
Recombinant Human Artemin (carrier-free)	5 µg   20 µg	756301   756303	Recombinant Human HB-EGF (carrier-free)	10 µg   25 µg	552002   552004
Recombinant Human BDNF (carrier-free)	2 µg   10 µg	760201   760202	Recombinant Human Heregulin-β1 (Animal-Free)	50 µg	711104
Recombinant Human BMP-4 (Animal-Free)	10 µg	710002	Recombinant Human Midkine (carrier-free)	10 µg   25 µg	754102   754104
Recombinant Human BMP-4 (carrier-free)	2 µg   10 µg	595201   595202	Recombinant Human NGFR (TNFRSF16)-Fc Chimera (carrier-free)	10 µg   25 µg   100 µg 500 µg	754002   754004   754006 754008
Recombinant Human BMP-5 (carrier-free)	2 µg   10 µg	595401   595402	Recombinant Human NNT-1 (BCSF-3) (carrier-free)	2 µg   10 µg	596901   596902
Recombinant Human BMP-6 (carrier-free)	2 µg   10 µg	595501   595502	Recombinant Human Noggin (carrier-free)	5 µg   20 µg	597002   597004
Recombinant Human BMP-7 (carrier-free)	2 µg   10 µg	595601   595602	Recombinant Human Nogo-B (ELISA Std.)	4 pack	592809
Recombinant Human BMP-9 (carrier-free)	10 µg   25 µg	553102   553104	Recombinant Human NRG1 (Heregulin) EGF Domain (carrier-free)	25 µg   100 µg	551904   551906
Recombinant Human BMP-10 (carrier-free)	10 µg   25 µg   100 µg 500 µg	751602   751604   751606 751608	Recombinant Human NT-3 (Animal-Free)	10 µg	712102
Recombinant Human BMP-13 (carrier-free)	10 µg   50 µg	595802   595804	Recombinant Human NT-3 (carrier-free)	2 µg   10 µg	598201   598202
Recombinant Human BMP-14 (GDF-5) (carrier-free)	10 µg   25 µg	752302   752304	Recombinant Human NT-4 (Animal-Free)	10 µg	712202
Recombinant Human CNTF (Animal-Free)	20 µg	710104	Recombinant Human NT-4 (carrier-free)	2 µg   10 µg	598301   598302
Recombinant Human CNTF (carrier-free)	10 µg   25 µg   100 µg 500 µg	559802   559804   559806 559808	Recombinant Human NTRK2 (TrkB) (carrier-free)	10 µg   25 µg   100 µg	557502   557504   557506
Recombinant Human EGF (Animal-Free)	500 µg	713008	Recombinant Human Neurturin (carrier-free)	5 µg   20 µg	760302   760304
Recombinant Human EGF (carrier-free)	100 µg   500 µg	585506   585508	Recombinant Human β-NGF (Animal-Free)	100 µg	711906
Recombinant Human EphA2 (carrier-free)	10 µg   25 µg   100 µg 500 µg	754502   754504   754506 754508	Recombinant Human OMG (carrier-free)	10 µg   25 µg   100 µg 500 µg	757502   757504   757506 757508
Recombinant Human Ephrin-A1 (carrier-free)	10 µg   25 µg   100 µg 500 µg	754902   754904   754906 754908	Recombinant Human Slit2-N (carrier-free)	5 µg   25 µg	757102   757104
Recombinant Human FGF-1-acidic (Animal-Free)	50 µg	710204	Recombinant Human Sonic Hedgehog (carrier-free)	10 µg   25 µg   100 µg	753502   753504   753506
Recombinant Human FGF-1-acidic (carrier-free)	10 µg   25 µg   100 µg 500 µg	599202   599204   599206 599208	Recombinant Human TAFA2 (carrier-free)	10 µg   25 µg   100 µg	753702   753704   753706
Recombinant Human FGF-3 (carrier-free)	10 µg   25 µg   100 µg 500 µg	558002   558004   558006 558008	Recombinant Human VEGF-165 (Animal-Free)	10 µg	718302
Recombinant Human FGF-4 (Animal-Free)	25 µg	710404	Recombinant Human VEGF-165 (carrier-free)	10 µg   25 µg   100 µg 500 µg	583702   583704   583706 583708
Recombinant Human FGF-4 (carrier-free)	10 µg   25 µg   100 µg 500 µg	592202   592204   592206 592208	Recombinant Mouse BMP-4 (carrier-free)	2 µg   10 µg	595301   595302
Recombinant Human FGF-6 (carrier-free)	10 µg   25 µg   100 µg 500 µg	554202   554204   554206 554208	Recombinant Mouse BMP-9 (carrier-free)	10 µg   25 µg	553202   553204
Recombinant Human FGF-9 (Animal-Free)	20 µg	710604	Recombinant Mouse EGF (Animal-Free)	500 µg	713108
Recombinant Human FGF-9 (carrier-free)	10 µg   25 µg   100 µg 500 µg	558702   558704   558706 558708	Recombinant Mouse EGF (carrier-free)	100 µg   500 µg	585606   585608
Recombinant Human FGF-10 (Animal-Free)	25 µg	710704	Recombinant Mouse Ephrin-A1 (carrier-free)	10 µg   25 µg   100 µg 500 µg	755002   755004   755006 755008
Recombinant Human FGF-10 (carrier-free)	10 µg   25 µg   100 µg 500 µg	559302   559304   559306 559308	Recombinant Mouse FGF-1-acidic (carrier-free)	10 µg   25 µg   100 µg 500 µg	750902   750904   750906 750908
Recombinant Human FGF-17 (carrier-free)	10 µg   25 µg   100 µg 500 µg	556302   556304   556306 556308	Recombinant Mouse FGF-10 (carrier-free)	10 µg   25 µg   100 µg 500 µg	751002   751004   751006 751008
Recombinant Human FGF-18 (carrier-free)	10 µg   25 µg   100 µg 500 µg	753302   753304   753306 753308	Recombinant Mouse FGF-17 (carrier-free)	25 µg   100 µg   500 µg	751104   751106   751108
Recombinant Human FGF-21 (carrier-free)	10 µg   25 µg   100 µg 500 µg	553802   553804   553806 553808	Recombinant Mouse FGF-basic (Animal-Free)	50 µg	713204
Recombinant Human FGF-basic (146 aa) (Animal-Free)	50 µg	713304	Recombinant Mouse FGF-basic (carrier-free)	10 µg   25 µg   100 µg 500 µg	579602   579604   579606 579608
Recombinant Human FGF-basic/145aa (ELISA Std.)	10 µg   25 µg   100 µg 500 µg	571502   571504   571506 571508	Recombinant Mouse Glycan-1 (carrier-free)	10 µg   25 µg   100 µg 500 µg	757302   757304   757306 757308
Recombinant Human FGF-basic/145aa (ELISA Std.)	4 pack	571509	Recombinant Mouse Noggin (Animal-Free)	20 µg	712004
Recombinant Human FGF-basic (154 aa) (Animal-Free)	50 µg	710304	Recombinant Mouse Noggin (carrier-free)	5 µg   20 µg	597102   597104
Recombinant Human FGFR3 (IIIc)-Fc Chimera (carrier-free)	10 µg   25 µg   100 µg 500 µg	751902   751904   751906 751908	Recombinant Mouse β-NGF (carrier-free)	5 µg   20 µg	598102   598104
Recombinant Human FGFR4-Fc Chimera (carrier-free)	10 µg   25 µg   100 µg 500 µg	752502   752504   752506 752508	Recombinant Mouse OMG (carrier-free)	10 µg   25 µg   100 µg 500 µg	757602   757604   757606 757608
Recombinant Human Glycan-1 (carrier-free)	10 µg   25 µg   100 µg 500 µg	757202   757204   757206 757208	Recombinant Mouse Persephin (carrier-free)	5 µg   20 µg	598402   598404
Recombinant Human Glycan-3 (carrier-free)	10 µg   25 µg   100 µg 500 µg	758102   758104   758106 758108	Recombinant Mouse P-Selectin (CD62P)-Fc Chimeric (carrier-free)	10 µg   25 µg	755402   755404
Recombinant Human Gremlin-1 (carrier-free)	10 µg   50 µg	596202   596204	Recombinant Mouse Sonic Hedgehog (Shh) (Cys25-Gly198) (carrier-free)	10 µg   25 µg   100 µg	754702   754704   754706

# Neuroscience Cell Markers

BioLegend offers an extensive collection of cell surface, cytoskeletal and organelle markers. These markers enable researchers to distinguish neuronal and glial cell types in tissue sections or cell culture applications. BioLegend is proud to offer SMI® monoclonal antibodies, originally developed by Dr. Ludwig Sternberger. These antibodies have become the gold standard as neural and glial markers and have an extensive publication history in scientific literature.

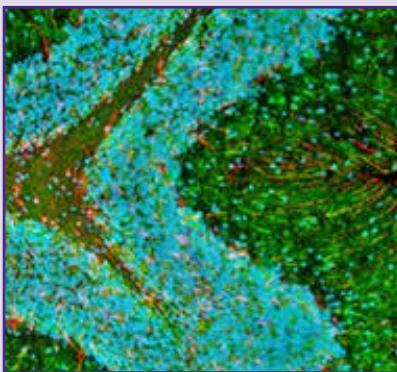
## Glial Fibrillary Acidic Protein

Glial fibrillary acidic protein (GFAP) is a member of the intermediate filament (IF) family of proteins, and is specifically expressed in astrocytes. IF proteins, together with microtubules and microfilaments, form an interconnected network of the cytoskeleton, which gives cells their form, shape and function. Astrocytes respond to many damage and disease states resulting in "astrogliosis" or the presence of a "glial response". GFAP antibodies are widely used to detect reactive astrocytes which form part of this response, since these cells express higher levels of GFAP than ramified astrocytes. GFAP is also a major component of the so-called glial scar, an astrocyte-rich structure apparently forming part of the barrier to nerve fiber regeneration following damage in the central nervous system. Neural stem cells frequently express GFAP. Antibodies to GFAP are therefore very useful as markers of normal and reactive astrocytic cells and neural stem cells.

### Antibodies to GFAP

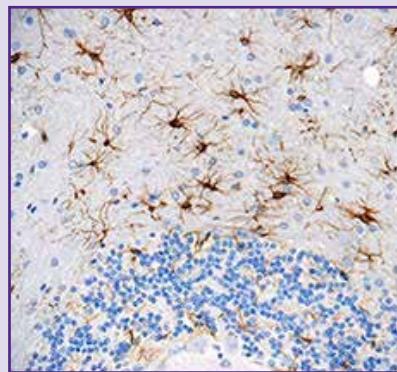
Specificity	Clone	Format	Size	Cat. No.
GFAP	2E1.E9	Purified	25 µg   100 µg	644701   644702
		Alexa Fluor® 488	100 µg	644704
		Alexa Fluor® 594	100 µg	644708
		Alexa Fluor® 647	100 µg	644706
		Brilliant Violet 421™	100 µg	644710
	MCA-5C10	Tissue Culture Supernatant	200 µL	801101
	Poly28294	Purified	100 µL	829401
	Poly28400	Serum	100 µL	840001
	15C7D5D2	Purified	100 µg	672402
	SMI 21	Ascites	100 µL   500 µL	837201   837202
	SMI 22	Ascites	100 µL	835301
	SMI 23	Ascites	100 µL   500 µL	837301   837302
	SMI 24	Ascites	100 µL	837401
	SMI 25	Ascites	100 µL   500 µL	837501   837502
	SMI 26	Ascites	100 µL   500 µL	837601   837602

GFAP (clone SMI 22)



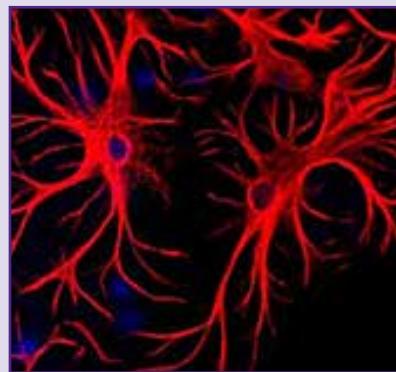
Rat brain tissue co-stained with anti-GFAP (clone SMI 22, green) and anti-Neurofilament H (clone Poly28226, red) antibodies. Nuclear staining is shown in blue (Hoechst). Photo courtesy of Molecular Expressions.

GFAP (clone MCA-5C10)



Formalin-fixed paraffin-embedded rat brain tissue stained with anti-GFAP antibody (clone MCA-5C10). Nuclei were counterstained with Hoechst and are shown in blue.

GFAP (Poly28294)



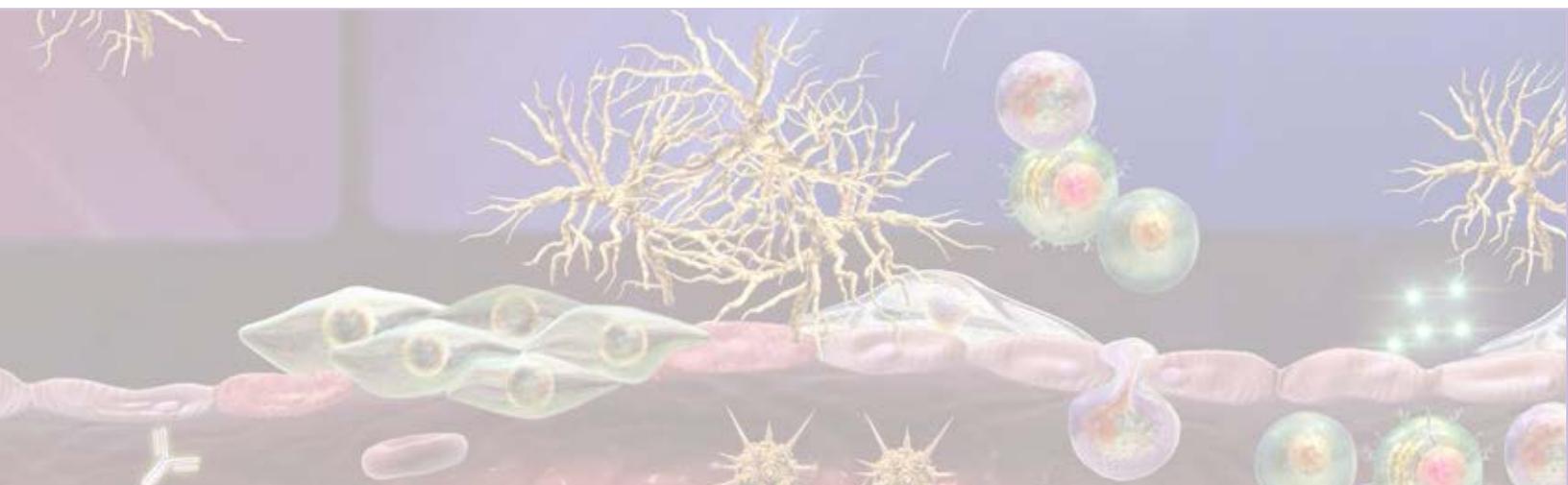
Rat glial cells in mixed culture stained with anti-GFAP antibody (Poly28294, red). Nuclei were counterstained with Hoechst and are shown in blue.

# Nestin

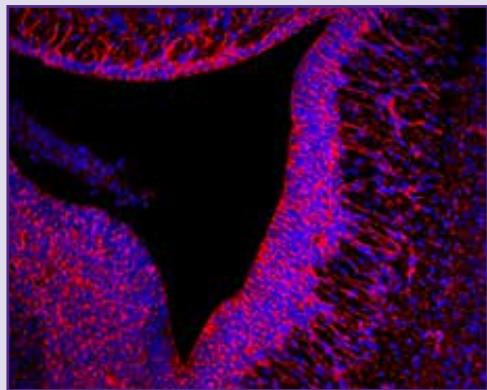
Nestin is a class IV intermediate filament (IF) protein of approximately 240 kD. Nestin interacts with other IF proteins including vimentin, desmin and internexin to form heterodimers and mixed polymers. Nestin is expressed in a variety of neural stem and progenitor cells, and in early stages of development in the central nervous system (CNS). Upon differentiation, and during neuro- and gliogenesis, nestin is replaced by cell type-specific intermediate filaments such as neurofilaments and glial fibrillary acidic protein (GFAP). Nestin distribution and expression pattern in proliferating cells suggests that it participates in structural organization of the cell by regulating the assembly and disassembly of intermediate filaments. The function of nestin itself is highly regulated by phosphorylation. Nestin expression is induced in adults under pathological conditions such as glial scar formation after CNS injury. Antibodies against nestin can be used as a predominant marker to describe stem and neural progenitor cells in the mammalian CNS.

## Antibodies to Nestin

Specificity	Clone	Format	Size	Cat. No.
Nestin	10C2	Purified	25 µg   100 µg	656801   656802
		Alexa Fluor® 594	100 µg	656804
		Alexa Fluor® 647	100 µg	656810
		Brilliant Violet 421™	100 µg	656808
		PE	25 tests 100 tests	656805 656806
Nestin	Poly18419	Direct-Blot™ HRP	100 µL	656811
		Serum	100 µL	841901
Nestin	Rat-401	Purified	100 µg	655102
Nestin Tail	Nestin 20	Serum	100 µL	839801
Nestin, C-terminus	Nestin 16	Serum	100 µL	841801
Nestin, Repeat region	Nestin 18	Serum	100 µL	841701
Nestin, Repeat region	Nestin 24	Serum	100 µL	841601

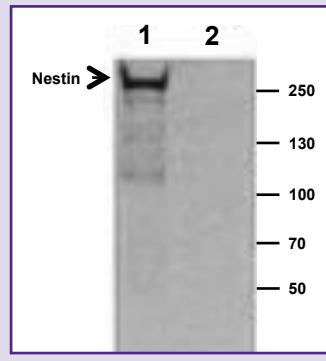


Nestin (clone nestin 20)



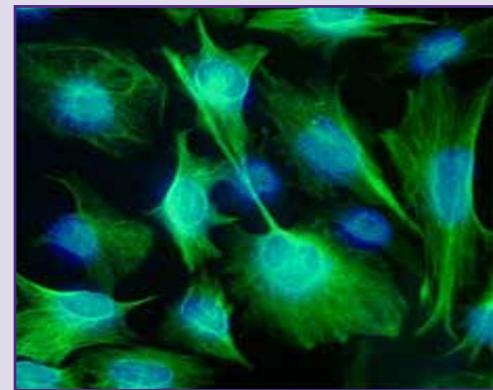
Day 2 neonatal mouse brain section stained with anti-nestin antibody (clone nestin 20, magenta). Nuclei were counterstained with DAPI (blue). Photo courtesy of R. Feuer.

Nestin (clone Rat-401)



Western blot analysis of anti-nestin antibody (clone Rat-401). Lane 1: Day 3 newborn mouse brain lysate; Lane 2: Adult mouse brain lysate.

Nestin (Poly18419)

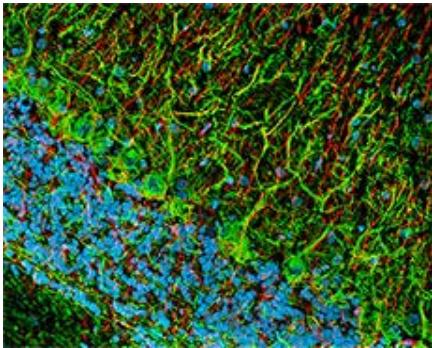


U251 cells (human glioblastoma) stained with anti-nestin antibody (Poly18419, green). Nuclei were counterstained with bisbenzimid (blue). Photo courtesy of J. Hou, NIH.

# Neurofilaments

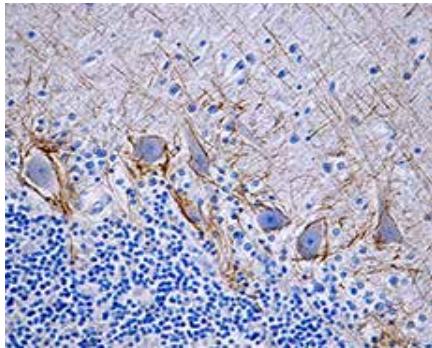
Neurofilaments (NFs) are ~10 nanometer, type IV intermediate filaments expressed in neurons. NFs are the major components of the neuronal cytoskeleton, and primarily function to provide structural support for axons and regulate axonal diameter. There are three major mammalian neurofilament subunits which are named based on their apparent molecular weight: 1) neurofilament light (NF-L, ~70 kD), 2) neurofilament medium (NF-M, ~145-160 kD), and 3) neurofilament heavy (NF-H, ~200-220 kD). Neurofilaments are extensively phosphorylated, and their phosphorylation status plays an important role in the modulation of their function. Abnormal NF modifications, mutations, and accumulation have been associated with neurodegenerative diseases. NF immunostaining is commonly used as a diagnostic marker for neuropathology detection. NFs are also useful for differentiating neurons (positive for NF) from glia (negative for NF).

Pan-Neuronal Neurofilament Marker



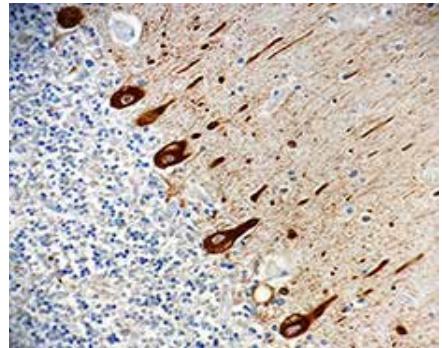
Rat brain tissue section co-stained with anti-pan Neurofilament (clone SMI 311, green) and anti-GFAP antibodies (Poly28400, red). Nuclei were counterstained with Hoechst and are shown in blue. Photo courtesy of Molecular Expressions.

Neurofilament H, Phosphorylated



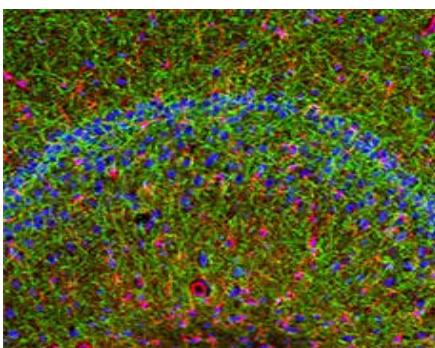
IHC staining of human cerebellum tissue with anti-Neurofilament H antibody (clone SMI 34) followed by counterstaining with hematoxylin.

Neurofilament H&M, Non-Phosphorylated



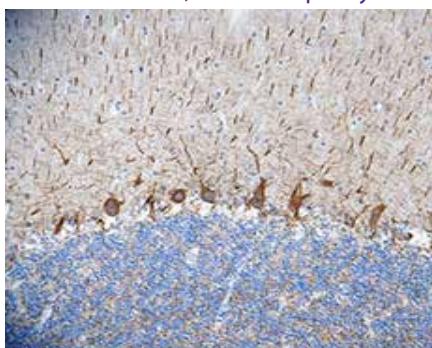
IHC staining of human cerebellum tissue with anti-Neurofilaments H & M antibody (clone SMI 33) followed by counterstaining with hematoxylin.

Pan-Neuronal Neurofilament Marker



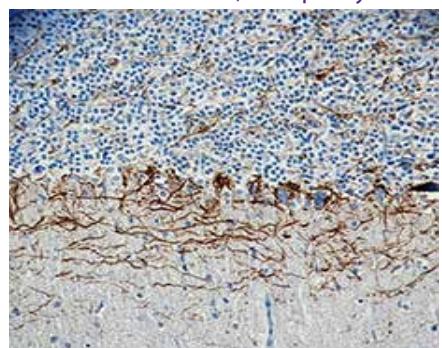
Rat hippocampal tissue section co-stained with anti-Neurofilament H (Poly28226, green) and anti-GFAP (Poly28400, red.) antibodies. Nuclei were counterstained with Hoechst and are shown in blue. Photo courtesy of Molecular Expressions.

Neurofilament L, Non-Phosphorylated



IHC staining of human cerebellum tissue with anti-Neurofilament L antibody (clone NFL1) followed by hematoxylin counterstaining.

Neurofilament H&M, Phosphorylated



IHC staining of human cerebellum tissue with anti-Neurofilament H & M antibody (clone SMI 310) followed by counterstaining with hematoxylin.

## Antibodies to Non-Phosphorylated Neurofilaments Proteins

Specificity	Clone	Format	Size	Cat. No.
Neurofilament H (NF-H)	Poly28226	Purified	100 µL	822601
	SMI 32	Purified	100 µL	801701
	SMI 37	Ascites	100 µL	835801
	SMI 38	Ascites	100 µL	835901
	SMI 39	Ascites	100 µL   500 µL	836001   836002
Neurofilament H & M (NF-H/NF-M)	SMI 33	Ascites	100 µL	835401
	RMdO-20	Ascites	200 µL	801901
Neurofilament L (NF-L)	NFL1	Purified	100 µg	845802
	NFL2	Purified	100 µg	846002
	NFL3	Purified	100 µg	845902
Neurofilament M (NF-M)	Poly28410	Serum	100 µL	841001
	Poly28227	Purified	100 µL	822701

## Antibodies to Phosphorylated Neurofilaments Proteins

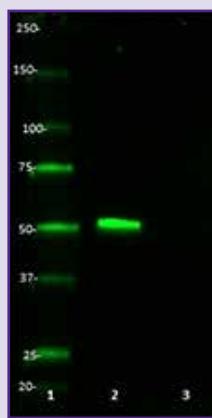
Specificity	Clone	Format	Size	Cat. No.
Neurofilament H (NF-H)	SMI 31	Purified	100 µL	801601
	SMI 34	Purified	100 µg	835503
	SMI 36	Purified	100 µg	835703
	Poly28408	Serum	100 µL	840801
Neurofilament H & M (NF-H/NF-M)	SMI 35	Ascites	100 µL   500 µL	835601   835602
		Purified	100 µg	835604
	SMI 310	Ascites	100 µL   500 µL	837701   837702
Neurofilament Marker (pan-neuronal, cocktail)		Purified	100 µg	837704
	SMI 311	Ascites	100 µL   500 µL	837801   837802
	SMI 312	Purified	100 µg	837904



## Tubulins

Tubulins belong to a superfamily of globular proteins that comprises  $\alpha$ -,  $\beta$ -,  $\gamma$ -,  $\delta$ -,  $\varepsilon$ - and  $\zeta$ -tubulins. The  $\alpha$ - and  $\beta$ -tubulins share 40% amino acid sequence homology, and both exist in several isoforms. They are the main constituents of microtubules (MTs), which are the major components of the cytoskeleton essential for intracellular transport. Microtubule assembly is a dynamic process where  $\alpha$ - and  $\beta$ -tubulin polymerize to form dimers that get incorporated into the MTs. Tubulins are subject to post-translational modifications (PTMs) such as detyrosination, glutamylation and acetylation. Some PTMs such as detyrosination reduce microtubule depolymerization, leading to MT stability. Alterations in MT dynamics and stability is a common feature of many neurodegenerative disorders, and is associated with the 'dying-back' of axons. Class III  $\beta$ -tubulin is abundantly expressed in neurons and is commonly used as a neuronal cell marker.

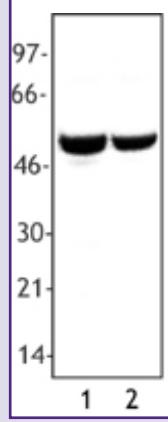
### $\beta$ -Tubulin III



Western blot analysis demonstrating the specificity of anti- $\beta$ -Tubulin III antibody (clone TUJ1 1-15-56):

Ln 1: Molecular weight marker; Ln 2: Rat Brain lysate; Ln 3: BSA negative control.

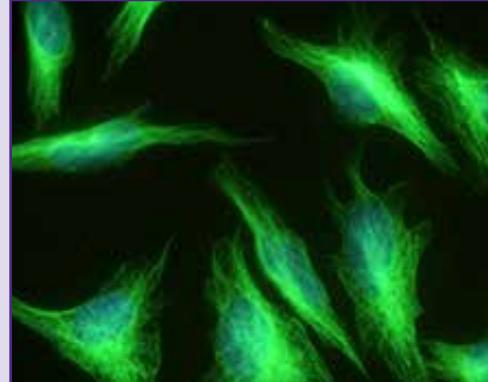
### $\gamma$ -Tubulin



Western blot analysis demonstrating the specificity of anti- $\gamma$ -tubulin antibody (Poly6209):

Ln 1: A431 cell lysate; Ln 2: NIH3T3 cell lysate.

### $\beta$ -Tubulin III, Polymerized



HeLa cells stained with anti-polymerized Beta Tubulin III (clone SMI 62).

## Antibodies to Tubulin Proteins

Specificity	Clone	Format	Size	Cat. No.
β-Tubulin	TU27/Tu-bulin	Purified	250 µL	903401
β-Tubulin II B (TUBB2B)	6B1	Purified	200 µL	909201
	7B9	Purified	200 µL	909101
β-Tubulin III (TUBB3)	AA10	Purified	25 µg   100 µg	657401   657402
		Alexa Fluor®488	25 µg   100 µg	657403   657404
		Alexa Fluor®594	100 µg	657408
		Alexa Fluor®647	25 µg   100 µg	657405   657406
		Direct-Blot™ HRP	100 µL	657409
β-Tubulin III (TUBB3)	TUJ1 1-15-56	Purified	25 µg   100 µg	845501   845502
β-Tubulin III (TUBB3)	TUJ1	Purified	100 µL   250 µL	801201   801202
		Alexa Fluor®488	100 µL	801203
β-Tubulin III (TUBB3)	Poly18020	Purified	100 µL	802001
β-Tubulin III , Depolymerized	SMI 61	Ascites	500 µL	920801
β-Tubulin III , Polymerized	SMI 62	Ascites	500 µL	921001
α-Tubulin	10D8	Purified	25 µg   100 µg	627901   627902
		Alexa Fluor®488	25 µg   100 µg	627905   627906
		Alexa Fluor®594	100 µg	627910
		Alexa Fluor®647	100 µg	627908
		Biotin	25 µg   100 µg	627903   627904
α-Tubulin	AA13	Purified	100 µL	909601
α-Tubulin	TU-01	Purified	25 µ   100 µg	625901   625902
α-Tubulin, Detyrosinated	AA12	Purified	100 µL	909501
γ-Tubulin	14C11	Purified	25 µg	629201
	Poly6209	Purified	50 µL   200 µL	620901   620902

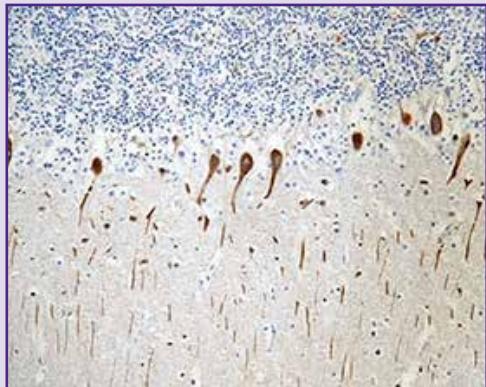
## Tubulin Peptide

Description	Size	Cat. No.
rHuman β-Tubulin III (TUBB3) Peptide	1 mg	843601

## Cellular Marker Antibodies

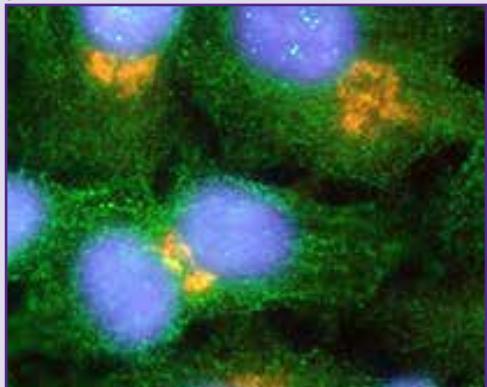
Specificity	Clone	Format	Size	Cat. No.
A2B5	105	Alexa Fluor® 647	25 µg   100 µg	150703   150704
		Purified	100 µg	150702
ABCA3	3C9	Purified	100 µL	911001
Blood-Brain Barrier	SMI 71	Ascites	100 µL   500 µL	836801   836802
CCR8	L263G8	Biotin	100 µg	360606
		PE	25 tests   100 tests	360603   360604
		Purified	100 µg	360602
CD11b	M1/70	Alexa Fluor® 488	100 µg   25 µg	101217   101219
		Alexa Fluor® 594	100 µg	101254
		Alexa Fluor® 647	100 µg   25 µg	101218   101220
		Alexa Fluor® 700	100 µg	101222
		APC	25 µg   100 µg	101211   101212
		APC/Cy7	25 µg   100 µg	101225   101226
		APC/Fire™ 750	25 µg   100 µg	101261   101262
		Biotin	50 µg   500 µg	101203   101204
		Brilliant Violet 421™	125 µL   500 µL	101235   101236
		Brilliant Violet 510™	125 µL   50 µg	101245   101263
		Brilliant Violet 570™	125 µL	101233
		Brilliant Violet 605™	125 µL   50 µg	101237   101257
		Brilliant Violet 650™	125 µL   50 µg	101239   101259
		Brilliant Violet 711™	125 µL   50 µg	101241   101242
		Brilliant Violet 785™	50 µg	101243
		FITC	50 µg   500 µg	101205   101206
		LEAF™	50 µg   500 µg 1 mg	101213   101214 101231
		Pacific Blue™	25 µg   100 µg	101223   101224
		PE	50 µg   200 µg	101207   101208
		PE/Cy5	25 µg   100 µg	101209   101210
		PE/Cy7	25 µg   100 µg	101215   101216
		PE/Dazzle™ 594	25 µg   100 µg	101255   101256
		PerCP	25 µg   100 µg	101229   101230
		PerCP/Cy5.5	25 µg   100 µg	101227   101228
		Purified	50 µg   500 µg	101201   101202
		Purified (MaxPar® Ready)	100 µg	101249
		Ultra-LEAF™	1 mg	101248

### β-Tubulin III



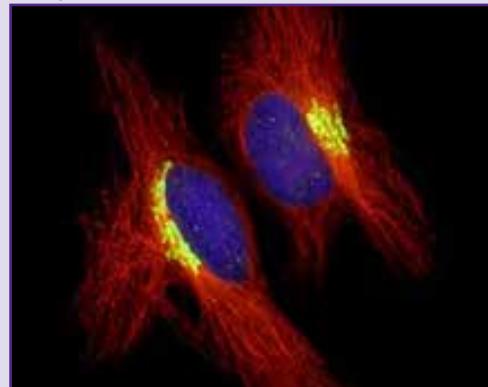
IHC staining of formalin-fixed paraffin-embedded healthy human brain tissue with anti-β-Tubulin III antibody (clone TUJ1 1-15-56) followed by counterstaining with hematoxylin.

### β-Tubulin IIB



HeLa cells co-stained with anti-β tubulin IIB (clone 7B9, green) and anti-giantin (Poly19243, orange) antibodies. Nuclei were counterstained with DAPI (blue).

### Pan β-Tubulin



HeLa cells co-stained with anti-pan β tubulin (clone TU27, red) and anti-giantin (Poly19243, green) antibodies. Nuclei were counterstained with DAPI (blue).

## Cellular Marker Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD11b	ICRF44	Alexa Fluor® 488	25 tests   100 tests	301317   301318			PE/Cy7	25 µg   100 µg	117317   117318
		Alexa Fluor® 594	100 µg	301340			PE/Dazzle™ 594	25 µg   100 µg	117347   117348
		Alexa Fluor® 647	25 tests	301319			PerCP	25 µg   100 µg	117325   117326
		APC	25 tests   100 tests 100 µg	301309   301310 301350			PerCP/Cy5.5	25 µg   100 µg	117327   117328
		APC/Cy7	25 tests   100 tests	301341   301342			Purified	50 µg   500 µg	117301   117302
		APC/Fire™ 750	25 tests   100 tests	301351   301352			Purified (MaxPar® Ready)	100 µg	117341
		Biotin	100 µg	301304					
		Brilliant Violet 421™	25 tests   100 tests	301323   301324					
		Brilliant Violet 510™	25 tests   100 tests	301333   301334					
		Brilliant Violet 570™	25 tests	301325					
		Brilliant Violet 605™	25 tests   100 tests	301331   301332					
		Brilliant Violet 650™	25 tests   100 tests	301335   301336					
		Brilliant Violet 711™	25 tests   100 tests	301343   301344					
		Brilliant Violet 785™	25 tests   100 tests	301345   301346					
		FITC	25 tests   100 tests	301329   301330					
		LEAF™	50 µg   500 µg	301311   301312					
		Pacific Blue™	100 µg   25 µg	301315   301316					
		PE	25 tests   100 tests	301305   301306					
		PE/Cy5	25 tests   100 tests	301307   301308					
		PE/Cy7	25 tests   100 tests	301321   301322					
		PE/Dazzle™ 594	25 tests   100 tests	301347   301348					
		PerCP/Cy5.5	25 tests   100 tests	301327   301328					
		Purified	100 µg	301302					
		Purified (MaxPar® Ready)	100 µg	301337					
CD11b (activated)	CBRM1/5	APC	25 tests   100 tests	301409   301410					
		FITC	25 tests   100 tests	301403   301404					
		LEAF™	50 µg	301407					
		PE	25 tests   100 tests	301405   301406					
		PE/Cy7	25 tests   100 tests	301411   301412					
		Purified	100 µg	301402					
CD11b/c	OX-42	Alexa Fluor® 488	100 µg	201812					
		Alexa Fluor® 647	100 µg	201814					
		APC	50 µg	201809					
		Biotin	100 µg	201803					
		FITC	100 µg	201805					
		PE	50 µg	201807					
		PE/Cy7	25 µg   100 µg	201817   201818					
		PerCP/Cy5.5	25 µg   100 µg	201819   201820					
		Purified	100 µg	201801					
CD11c	N418	Alexa Fluor® 488	100 µg   25 µg	117311   117313					
		Alexa Fluor® 594	100 µg	117346					
		Alexa Fluor® 647	100 µg   25 µg	117312   117314					
		Alexa Fluor® 700	25 µg   100 µg	117319   117320					
		APC	25 µg   100 µg	117309   117310					
		APC/Cy7	25 µg   100 µg	117323   117324					
		APC/Fire™ 750	25 µg   100 µg	117351   117352					
		Biotin	50 µg   500 µg	117303   117304					
		Brilliant Violet 421™	125 µL   500 µL 50 µg	117329   117330 117343					
		Brilliant Violet 510™	125 µL   500 µL	117337   117338					
		Brilliant Violet 570™	125 µL	117331					
		Brilliant Violet 605™	125 µL   50 µg	117333   117334					
		Brilliant Violet 650™	50 µg	117339					
		Brilliant Violet 711™	50 µg	117349					
		Brilliant Violet 785™	125 µL   50 µg	117335   117336					
		FITC	50 µg   500 µg	117305   117306					
		Pacific Blue™	25 µg   100 µg	117321   117322					
		PE	50 µg   200 µg	117307   117308					
		PE/Cy5	100 µg	117316					
					CD11c	Bu15	Alexa Fluor® 488	25 tests   100 tests	337235   337236
							Alexa Fluor® 647	25 tests   100 tests	337229   337230
							Alexa Fluor® 700	25 tests   100 tests	337219   337220
							APC	25 tests   100 tests	337207   337208
							APC/Cy7	25 tests   100 tests	337217   337218
							Biotin	100 µg	337232
							Brilliant Violet 421™	25 tests   100 tests	337225   337226
							FITC	25 tests   100 tests	337213   337214
							Pacific Blue™	100 tests	337212
							PE	25 tests   100 tests 100 µg	337205   337206 337224
							PE/Cy7	25 tests   100 tests	337215   337216
							PE/Dazzle™ 594	25 tests   100 tests	337227   337228
							PerCP	25 tests   100 tests	337233   337234
							PerCP/Cy5.5	25 tests   100 tests	337209   337210
							Purified	100 µg	337202
							Purified (MaxPar® Ready)	100 µg	337221
					CD25	BC96	Alexa Fluor® 488	25 tests   100 tests	302615   302616
							Alexa Fluor® 647	25 tests   100 tests	302617   302618
							Alexa Fluor® 700	25 µg   100 µg	302621   302622
							APC	25 tests   100 tests	302609   302610
							APC/Cy7	25 tests   100 tests	302613   302614
							Biotin	100 µg	302624
							Brilliant Violet 421™	25 tests   100 tests	302629   302630
							Brilliant Violet 510™	25 tests   100 tests	302639   302640
							Brilliant Violet 605™	25 tests   100 tests	302631   302632
							Brilliant Violet 650™	25 tests   100 tests	302633   302634
							Brilliant Violet 711™	25 tests   100 tests	302635   302636
							Brilliant Violet 785™	25 tests   100 tests	302637   302638
							FITC	25 tests   100 tests	302603   302604
							Pacific Blue™	100 µg   100 tests	302620   302627
							PE	25 tests   100 tests	302605   302606
							PE/Cy5	25 tests   100 tests	302607   302608

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.		
CD25	M-A251	PE/Cy7	25 tests   100 tests	302611   302612	CD45	30-F11	Alexa Fluor® 647	25 µg   100 µg	102911   102912		
		PerCP/Cy5.5	25 tests   100 tests	302625   302626			FITC	50 µg   500 µg	102905   102906		
		Purified	100 µg	302602			LEAF™	50 µg   500 µg	102907   102908		
		Alexa Fluor® 488	25 tests   100 tests	356115   356116			Purified	50 µg   500 µg	102901   102902		
		Alexa Fluor® 647	25 tests   100 tests	356127   356128			Alexa Fluor® 488	25 µg   100 µg	103121   103122		
		Alexa Fluor® 700	25 tests   100 tests	356117   356118			Alexa Fluor® 594	100 µg	103144		
		APC	25 tests   100 tests	356109   356110			Alexa Fluor® 647	25 µg   100 µg	103123   103124		
		APC/Cy7	25 tests   100 tests	356121   356122			Alexa Fluor® 700	25 µg   100 µg	103127   103128		
		APC/Fire™ 750	25 tests   100 tests	356135   356136			APC	25 µg   100 µg	103111   103112		
		Biotin	25 µg   100 µg	356123   356124			APC/Cy7	25 µg   100 µg	103115   103116		
		Brilliant Violet 421™	25 tests   100 tests	356113   356114			APC/Fire™ 750	25 µg   100 µg	103153   103154		
		Brilliant Violet 510™	25 tests   100 tests	356119   356120			Biotin	50 µg   500 µg	103103   103104		
		FITC	25 tests   100 tests	356105   356106			Brilliant Violet 421™	125 µL   50 µg	103133   103134		
		Pacific Blue™	25 tests   100 tests	356129   356130			Brilliant Violet 510™	125 µL   50 µg	103137   103138		
		PE	25 tests   100 tests	356103   356104			Brilliant Violet 570™	125 µL   50 µg	103135   103136		
		PE/Cy7	25 tests   100 tests	356107   356108			Brilliant Violet 605™	125 µL   500 µL	103139   103140		
		PE/Dazzle™ 594	25 tests   100 tests	356125   356126			Brilliant Violet 650™	50 µg	103151		
		PerCP	25 tests   100 tests	356131   356132			Brilliant Violet 711™	50 µg	103147		
		PerCP/Cy5.5	25 tests   100 tests	356111   356112			Brilliant Violet 785™	50 µg	103149		
		Purified	25 µg   100 µg	356101   356102			FITC	50 µg   500 µg	103107   103108		
CD40	1C10	LEAF™	50 µg   500 µg	102809   102810			LEAF™	50 µg   500 µg	103119   103120		
		Purified	500 µg	102802			Pacific Blue™	25 µg   100 µg	103125   103126		
		Ultra-LEAF™	1 mg	102812			PE	50 µg   200 µg	103105   103106		
		Alexa Fluor® 647	25 µg   100 µg	124613   124614			PE/Cy5	25 µg   100 µg	103109   103110		
		APC	25 µg   100 µg	124611   124612			PE/Cy7	25 µg   100 µg	103113   103114		
		Biotin	50 µg   500 µg	124605   124606			PE/Dazzle™ 594	25 µg   100 µg	103145   103146		
		FITC	50 µg   500 µg	124607   124608			PerCP	25 µg   100 µg	103129   103130		
		LEAF™	500 µg   1 mg	124604   124619			PerCP/Cy5.5	25 µg   100 µg	103131   103132		
		Pacific Blue™	25 µg   100 µg	124625   124626			Purified	50 µg   500 µg	103101   103102		
		PE	25 µg   100 µg	124609   124610			Purified (MaxPar® Ready)	100 µg	103141		
		PE/Cy5	25 µg   100 µg	124617   124618			CD45	OX-1	Alexa Fluor® 488	100 µg	202210
		PE/Cy7	25 µg   100 µg	124621   124622			Alexa Fluor® 647	25 µg   100 µg	202211   202212		
		PE/Dazzle™ 594	25 µg   100 µg	124629   124630			Alexa Fluor® 700	100 µg	202218		
		PerCP/Cy5.5	25 µg   100 µg	124623   124624			APC/Cy7	100 µg	202216		
		Purified	50 µg   500 µg	124601   124602			Biotin	100 µg	202203		
		Ultra-LEAF™	1 mg	124628			FITC	100 µg	202205		
CD40	5C3	Alexa Fluor® 488	100 tests	334318			PE	50 µg	202207		
		Alexa Fluor® 647	25 tests   100 tests	334311   334312			PE/Cy7	25 µg   100 µg	202213   202214		
		Alexa Fluor® 700	25 tests   100 tests	334327   334328			PerCP/Cy5.5	100 µg	202220		
		APC	25 tests   100 tests	334309   334310			Purified	100 µg	202201		
		APC/Cy7	25 tests   100 tests	334323   334324							
		Biotin	100 µg	334343							
		Brilliant Violet 421™	25 tests   100 tests	334331   334332							
		Brilliant Violet 510™	25 tests   100 tests	334329   334330							
		Brilliant Violet 605™	25 tests   100 tests	334335   334336							
		Brilliant Violet 650™	25 tests   100 tests	334337   334338							
		Brilliant Violet 711™	100 tests	334334							
		Brilliant Violet 785™	25 tests   100 tests	334339   334340							
		FITC	25 tests   100 tests	334305   334306							
		LEAF™	50 µg   500 µg	334303   334304							
		Pacific Blue™	25 µg   100 µg	334319   334320							
		PE	25 tests   100 tests	334307   334308							
		PE/Cy7	25 tests   100 tests	334321   334322							
CD40	HB14	PE/Dazzle™ 594	25 tests   100 tests	334341   334342							
		PerCP/Cy5.5	25 tests   100 tests	334315   334316							
		Purified	100 µg	334302							
		Purified (MaxPar® Ready)	100 µg	334325							
		APC	100 tests	313008							
		FITC	100 tests	313004							
		LEAF™	50 µg   200 µg	313009   313010							
CD40	HM40-3	PE	25 tests   100 tests	313005   313006							
		PE/Cy7	25 tests   100 tests	313011   313012							
		PerCP/Cy5.5	25 tests   100 tests	313013   313014							
		Purified	100 µg	313002							
		Alexa Fluor® 488	100 µg	102910							

## Cellular Marker Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD45	HI30	Alexa Fluor® 488	100 tests   25 tests	304017   304019	CD62E	HCD62E	Purified	100 µg	322702
		Alexa Fluor® 594	100 µg	304060			PE	25 tests   100 tests	322605   322606
		Alexa Fluor® 647	100 tests   25 tests	304018   304020	CD62E	HAE-1f	Purified	100 µg	322602
		Alexa Fluor® 700	25 µg   100 µg	304023   304024			APC	25 tests   100 tests	336011   336012
		APC	25 tests   100 tests	304011   304012			LEAF™	500 µg	336004
		APC/Cy7	500 tests	304037			PE	100 tests	336008
		APC/Fire™ 750	100 tests	304014			Purified	100 µg	336002
		Biotin	25 µg   100 µg	304061   304062	CD62E (E-selectin)	RME-1/CD62E	Purified	50 µg   500 µg	148801   148802
		Brilliant Violet 421™	25 tests   100 tests	304003   304004			Ultra-LEAF™	500 µg	148803
		Brilliant Violet 510™	25 tests   100 tests	304031   304032	CD68	KP1	Purified	100 µg	916104
		Brilliant Violet 570™	25 tests   100 tests	304033   304034	CD68	Y1/82A	Alexa Fluor® 488	25 tests   100 tests	333811   333812
		Brilliant Violet 605™	25 tests   100 tests	304041   304042			Alexa Fluor® 647	25 tests   100 tests	333819   333820
		Brilliant Violet 650™	25 tests   100 tests	304043   304044	CD80	16-10A1	APC	25 tests   100 tests	333809   333810
		Brilliant Violet 711™	25 tests   100 tests	304049   304050			APC/Cy7	25 tests   100 tests	333821   333822
		Brilliant Violet 785™	25 tests   100 tests	304047   304048			Biotin	100 µg	333804
		FITC	25 tests   100 tests	304005   304006			FITC	25 tests   100 tests	333805   333806
			500 tests   100 µg	304038   304054			PE	25 tests   100 tests	333807   333808
		Pacific Blue™	25 µg   100 µg	304021   304022			PE/Cy7	25 tests   100 tests	333815   333816
			100 tests	304029			PerCP/Cy5.5	25 tests   100 tests	333813   333814
		PE	25 tests   100 tests	304007   304008			Purified	25 µg   100 µg	333801   333802
			500 tests   100 µg	304039   304058	CD80	2D10	Alexa Fluor® 488	25 µg   100 µg	104715   104716
		PE/Cy5	25 tests   100 tests	304009   304010			Alexa Fluor® 647	25 µg   100 µg	104717   104718
		PE/Cy7	25 tests   100 tests	304015   304016			APC	25 µg   100 µg	104713   104714
		PE/Dazzle™ 594	25 tests   100 tests	304051   304052			Biotin	50 µg   500 µg	104703   104704
		PerCP	25 tests   100 tests	304025   304026			Brilliant Violet 421™	125 µL   500 µL	104725   104726
		PerCP/Cy5.5	25 tests   100 tests	304027   304028			Brilliant Violet 605™	125 µL	104729
		Purified	25 µg   100 µg	304001   304002			Brilliant Violet 650™	125 µL	104731
		Purified (MaxPar® Ready)	100 µg	304045			FITC	50 µg   500 µg	104705   104706
CD45	Tü116	Purified	25 µg   100 µg	361901   361902			LEAF™	500 µg	104710
CD45RA	OX-33	Alexa Fluor® 488	100 µg	202310			Pacific Blue™	25 µg   100 µg	104723   104724
		APC	25 µg   100 µg	202313   202314			PE	50 µg   200 µg	104707   104708
		Biotin	100 µg	202303			PE/Cy5	25 µg   100 µg	104711   104712
		FITC	100 µg	202305			PE/Cy7	25 µg   100 µg	104733   104734
		PE	50 µg	202307			PE/Dazzle™ 594	25 µg   100 µg	104737   104738
			25 µg   100 µg	202315   202316			PerCP/Cy5.5	25 µg   100 µg	104721   104722
		PE/Cy7	25 µg   100 µg	202317   202318			Purified	500 µg	104702
		PerCP/Cy5.5	25 µg   100 µg	202301			Purified (MaxPar® Ready)	100 µg	104735
CD45RC	OX-22	Alexa Fluor® 647	100 µg	204010	CD80	2D10	Alexa Fluor® 488	25 tests   100 tests	305213   305214
		PE	50 µg	204007			Alexa Fluor® 647	25 tests   100 tests	305215   305216
CD54	YN1/1.7.4	Alexa Fluor® 488	25 µg   100 µg	116111   116112			APC	25 tests   100 tests	305219   305220
		Alexa Fluor® 647	25 µg   100 µg	116113   116114			Biotin	100 µg	305204
		APC	25 µg   100 µg	116119   116120			Brilliant Violet 421™	25 tests   100 tests	305221   305222
		Biotin	50 µg	116103			Brilliant Violet 605™	25 tests	305225
		FITC	50 µg   500 µg	116105   116106			Brilliant Violet 650™	25 tests	305227
		LEAF™	50 µg   500 µg	116109   116110			FITC	25 tests   100 tests	305205   305206
		Pacific Blue™	25 µg   100 µg	116115   116116			LEAF™	50 µg   500 µg	305211   305212
		PE	50 µg   200 µg	116107   116108			PE	25 tests   100 tests	305207   305208
			50 µg   500 µg	116101   116102			PE/Cy5	25 tests   100 tests	305209   305210
CD54	1A29	Biotin	100 µg	202403			PE/Cy7	25 tests   100 tests	305217   305218
		PE	100 µg	202405			PE/Dazzle™ 594	25 tests   100 tests	305229   305230
CD54	HA58	APC	25 tests   100 tests	353111   353112			PerCP/Cy5.5	25 tests   100 tests	305231   305232
		FITC	25 tests   100 tests	353107   353108			Purified	25 µg   100 µg	305201   305202
		LEAF™	500 µg	353104	CD80	3H5	PE	50 µg	200205
		Pacific Blue™	25 tests   100 tests	353109   353110			Purified	500 µg	200202
		PE	25 tests   100 tests	353105   353106	CD86	24F	Alexa Fluor® 647	100 µg	200314
			25 µg   100 µg	353101   353102			Biotin	50 µg	200303
CD54	HCD54	Alexa Fluor® 488	25 tests   100 tests	322713   322714			FITC	50 µg	200305
		Alexa Fluor® 647	100 tests	322718			PE	50 µg   200 µg	200307   200308
		APC	100 tests	322712	CD86	GL-1	Alexa Fluor® 488	25 µg   100 µg	105017   105018
		Biotin	100 µg	322706			Alexa Fluor® 647	25 µg   100 µg	105019   105020
		FITC	100 tests	322720			Alexa Fluor® 700	25 µg   100 µg	105023   105024
		LEAF™	50 µg   500 µg	322703   322704			APC	25 µg   100 µg	105011   105012
		Pacific Blue™	25 µg   100 µg	322715   322716			APC/Cy7	25 µg   100 µg	105029   105030
		PE	25 tests   100 tests	322707   322708			APC/Fire™ 750	25 µg   100 µg	105045   105046
							Biotin	50 µg   500 µg	105003   105004
							Brilliant Violet 421™	125 µL	105031

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
CD86	IT2.2	Brilliant Violet 510™	125 µL   500 µL	105039   105040	CD140b (PDGFRβ)	18A2	APC	100 tests	323608
		Brilliant Violet 605™	125 µL	105037			Biotin	100 µg	323604
		Brilliant Violet 650™	125 µL	105035			PE	25 tests   100 tests	323605   323606
		Brilliant Violet 785™	50 µg	105043			Purified	100 µg	323602
		FITC	50 µg   500 µg	105005   105006	CD146	ME-9F1	Alexa Fluor® 488	25 µg   100 µg	134707   134708
		LEAF™	500 µg	105010			APC	25 µg   100 µg	134711   134712
		Pacific Blue™	25 µg   100 µg	105021   105022			FITC	25 µg   100 µg	134705   134706
		PE	50 µg   200 µg	105007   105008			PE	25 µg   100 µg	134703   134704
		PE/Cy5	25 µg   100 µg	105015   105016	CD146	P1H12	PE/Cy7	25 µg   100 µg	134713   134714
		PE/Cy7	25 µg   100 µg	105013   105014			PerCP/Cy5.5	25 µg   100 µg	134709   134710
		PE/Dazzle™ 594	25 µg   100 µg	105041   105042			Purified	50 µg   200 µg	134701   134702
		PerCP	25 µg   100 µg	105025   105026			Alexa Fluor® 647	25 tests   100 tests	361013   361014
		PerCP/Cy5.5	25 µg   100 µg	105027   105028	CD146 (MUC18, Mel-CAM)	SHM-57	APC	25 tests   100 tests	361015   361016
		Purified	50 µg   500 µg	105001   105002			Brilliant Violet 421™	25 tests   100 tests	361003   361004
		Alexa Fluor® 488	25 tests   100 tests	305413   305414			FITC	25 tests   100 tests	361011   361012
		Alexa Fluor® 647	25 tests   100 tests	305415   305416			PE	25 tests   100 tests	361005   361006
		APC	25 tests   100 tests	305411   305412	CD163	RM3/1	PE/Cy7	25 tests   100 tests	361007   361008
		Biotin	100 µg	305404			PerCP/Cy5.5	25 tests   100 tests	361009   361010
		Brilliant Violet 421™	25 tests   100 tests	305425   305426			Purified	25 µg   100 µg	361001   361002
		Brilliant Violet 510™	25 tests   100 tests	305431   305432			Alexa Fluor® 488	25 tests   100 tests	342007   342008
		Brilliant Violet 605™	25 tests   100 tests	305429   305430	CD163	SHM-57	Alexa Fluor® 647	25 tests   100 tests	342005   342006
		Brilliant Violet 650™	25 tests   100 tests	305427   305428			APC	25 tests   100 tests	342011   342012
		Brilliant Violet 711™	25 tests   100 tests	305439   305440			PE	25 tests   100 tests	342003   342004
		Brilliant Violet 785™	25 tests   100 tests	305441   305442			PE/Cy7	25 tests   100 tests	342009   342010
		LEAF™	50 µg   500 µg	305409   305410	CD163	RM3/1	PerCP/Cy5.5	25 tests   100 tests	342013   342014
		Pacific Blue™	25 µg   100 µg	305417   305418			Purified	25 µg   100 µg	342001   342002
		100 tests	305423				Alexa Fluor® 647	25 tests   100 tests	326507   326508
		PE	25 tests   100 tests	305405   305406			APC	25 tests   100 tests	326509   326510
		100 µg	305438		CD163	GHI/61	PE	25 tests   100 tests	326505   326506
		PE/Cy5	25 tests   100 tests	305407   305408			PE/Cy7	25 tests   100 tests	326513   326514
		PE/Cy7	25 tests   100 tests	305421   305422			PerCP/Cy5.5	25 tests   100 tests	326511   326512
		PE/Dazzle™ 594	25 tests   100 tests	305433   305434			Purified	100 µg	326502
		PerCP/Cy5.5	25 tests   100 tests	305419   305420	CD200 (OX2)	OX-104	Purified (MaxPar® Ready)	100 µg	305435
		Purified	25 µg   100 µg	305401   305402			Alexa Fluor® 647	25 tests   100 tests	333619   333620
		100 µg	305436				APC	25 tests   100 tests	333609   333610
		Purified (MaxPar® Ready)	100 µg	305435			APC/Cy7	25 tests   100 tests	333621   333622
CD86	PO3	Alexa Fluor® 700	100 µg	105122			Biotin	25 µg   100 µg	333603   333604
APC	25 µg   100 µg	105113   105114	CD122 (IL-2Rβ)	TU27	Brilliant Violet 421™	25 tests   100 tests	333611   333612		
FITC	50 µg   500 µg	105109   105110			Brilliant Violet 605™	25 tests   100 tests	333615   333616		
PE	50 µg   200 µg	105105   105106			FITC	25 tests   100 tests	333617   333618		
PE/Cy7	25 µg   100 µg	105115   105116			PE	25 tests   100 tests	333605   333606		
Purified	500 µg	105102			PE/Cy7	25 tests   100 tests	333613   333614		
APC	25 tests   100 tests	339007   339008			PE/Dazzle™ 594	25 tests   100 tests	333623   333624		
Brilliant Violet 421™	25 tests   100 tests	339009   339010			PerCP/Cy5.5	25 tests   100 tests	333607   333608		
LEAF™	500 µg	339004			Purified	100 µg	333602		
PE	25 tests   100 tests	339005   339006	CD140a	AP5	Brilliant Violet 421™	25 tests   100 tests	329213   329214		
PE/Cy7	25 tests   100 tests	339013   339014			APC	25 tests   100 tests	329207   329208		
PerCP/Cy5.5	25 tests   100 tests	339011   339012			Biotin	100 µg	329204		
Purified	100 µg	339002			Brilliant Violet 421™	25 tests	329209		
Purified (MaxPar® Ready)	100 µg	339015			Brilliant Violet 605™	25 tests   100 tests	329217   329218		
APC	25 µg   100 µg	135907   135908			PE	25 tests   100 tests	329205   329206		
Biotin	25 µg   100 µg	135909   135910			PE/Cy7	25 tests   100 tests	329211   329212		
PE	50 µg   200 µg	135905   135906			PerCP/Cy5.5	25 tests   100 tests	329215   329216		
Purified	25 µg   100 µg	135901   135902			Purified	25 µg   100 µg	329201   329202		
Biotin	25 µg   100 µg	323503   323504	CD200 Receptor	OX-108	Purified (MaxPar® Ready)	100 µg	329219		
PE	25 tests   100 tests	323505   323506			APC	25 tests   100 tests	329307   329308		
PE/Cy7	25 tests   100 tests	323507   323508			PE	25 tests   100 tests	329305   329306		
Purified	100 µg	323502			PE/Dazzle™ 594	25 tests   100 tests	329309   329310		
CD140b	APB5	APC			25 µg   100 µg	136007   136008	Purified	100 µg	329302
Biotin	25 µg   100 µg	136009   136010							
LEAF™	500 µg	136004							
PE	50 µg   200 µg	136005   136006							
Purified	100 µg	136002							

## Cellular Marker Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.
CD206 (MMR)	15-2	Alexa Fluor® 488	25 tests   100 tests	321113   321114
		Alexa Fluor® 647	100 tests	321116
		Alexa Fluor® 700	25 tests   100 tests	321131   321132
		APC	25 tests   100 tests	321109   321110
		APC/Cy7	25 tests   100 tests	321119   321120
		Biotin	100 µg	321118
		Brilliant Violet 421™	25 tests   100 tests	321125   321126
		FITC	25 tests   100 tests	321103   321104
		LEAF™	50 µg   500 µg	321111   321112
		PE	25 tests   100 tests	321105   321106
		PE/Cy5	100 tests	321108
		PE/Cy7	25 tests   100 tests	321123   321124
		PE/Dazzle™ 594	25 tests   100 tests	321129   321130
		PerCP/Cy5.5	25 tests   100 tests	321121   321122
		Purified	25 µg   100 µg	321101   321102
		Purified (MaxPar® Ready)	100 µg	321127
CD282 (TLR2)	T2.5	Alexa Fluor® 488	25 µg   100 µg	121807   121808
		Alexa Fluor® 647	25 µg   100 µg	121809   121810
		Biotin	100 µg	121804
		FITC	25 µg   100 µg	121805   121806
CD282 (TLR2)	TL2.1	Purified	25 µg   100 µg	121801   121802
		Alexa Fluor® 488	100 tests	309712
		Alexa Fluor® 647	100 tests	309714
		FITC	25 tests   100 tests	309705   309706
		LEAF™	100 µg   500 µg	309709   309710
		PE	25 tests   100 tests	309707   309708
CD283 (TLR3)	TLR-104	Purified	100 µg	309702
		PE	25 µg	315005
CD284 (TLR4)	HTA125	Purified	100 µg	315002
		APC	25 tests   100 tests	312815   312816
		Biotin	100 µg	312804
		Brilliant Violet 421™	25 tests	312811
		LEAF™	100 µg   500 µg	312807   312808
		PE	25 tests   100 tests	312805   312806
CD369 (Dectin-1/ CLEC7A)	1500	Purified	100 µg	355402
		PE	25 tests   100 tests	355403   355404
CX3CR1	2A9-1	Purified	100 µg	355402
		Alexa Fluor® 647	25 tests   100 tests	341607   341608
		APC	25 tests   100 tests	341609   341610
		APC/Cy7	25 tests   100 tests	341615   341616
		Biotin	50 µg	341617
		FITC	25 tests   100 tests	341605   341606
		PE	25 tests   100 tests	341603   341604
		PE/Cy7	25 tests   100 tests	341611   341612
Delta Opioid Receptor	DOR7D2A4	PerCP/Cy5.5	25 tests   100 tests	341613   341614
		Purified	100 µg	341602
		PE	25 tests   100 tests	355703   355704
		Purified	25 µg   100 µg	355701   355702
FOX3 (NeuN)	1B7	PE	100 tests	327206
		Purified	100 µL	834501
MAP2	SMI 52	Purified	100 µL	801801
		Poly28225	50 µL	822501
MAP2	AA6	Purified	100 µL	828101
		AA5		
MAP2	Poly18406	Serum	100 µL	840601
		SMI 94	Purified	100 µg
Myelin Basic Protein	SMI 99	Purified	100 µL   500 µL	808401   808402
		Myelin CNPase	Purified	100 µL   500 µL
NSE	NSE-P2	Ascites	100 µL   500 µL	836401   836402
		Purified	100 µg	836404
NSE	NSE-P1	Purified	200 µL	804501
		P2X7R	Purified	200 µL
Prox1	1F11	Purified	100 µg	148702
		Poly19252	Serum	200 µL
				925201

## Neural Stem Cell Antibodies

Specificity	Clone	Format	Size	Cat. No.
CD81 (TAPA-1)	5A6	APC	25 tests   100 tests	349509   349510
		Biotin	100 µg	349514
		FITC	25 tests   100 tests	349503   349504
		PE	25 tests   100 tests	349505   349506
		PE/Cy7	25 tests   100 tests	349511   349512
		PerCP/Cy5.5	25 tests   100 tests	349507   349508
		Purified	25 µg   100 µg	349501   349502
		Alexa Fluor® 647	25 µg   100 µg	141215   141216
		APC	25 µg   100 µg	141207   141208
		Biotin	100 µg	141206
		Brilliant Violet 421™	50 µg	141213
		PE	25 µg   100 µg	141203   141204
		PE/Cy7	25 µg   100 µg	141209   141210
		PE/Dazzle™ 594	25 µg   100 µg	141211   141212
		Purified	25 µg   100 µg	141201   141202
CD133	315-2C11	CD140a (PDGFRα)	16A1	
		Biotin	25 µg   100 µg	323503   323504
		PE	25 tests   100 tests	323505   323506
		PE/Cy7	25 tests   100 tests	323507   323508
		Purified	100 µg	323502
		CD184 (CXCR4)	12G5	
		CD184 (CXCR4)	L276F12	
		Alexa Fluor® 647	25 µg   100 µg	146503   146504
		APC	25 µg   100 µg	146507   146508
		Brilliant Violet 421™	50 µg	146511
		PE	25 µg   100 µg	146505   146506
		PE/Dazzle™ 594	25 µg   100 µg	146513   146514
		PerCP/Cy5.5	25 µg   100 µg	146509   146510
		Purified	100 µg	146502
		CD318/CDCP1	CUB1	
		Alexa Fluor® 647	100 tests	324012
		APC	100 tests	324008
CD325 (N-Cadherin)	13A9	FITC	100 tests	324004
		PE	100 tests	324006
		PE/Cy7	25 tests   100 tests	324015   324016
		PerCP/Cy5.5	25 tests   100 tests	324013   324014
		Purified	100 µg	324002
CD334 (FGFR4)	4FR6D3	CD325 (N-Cadherin)	8C11	
		Alexa Fluor® 488	25 tests   100 tests	350809   350810
		Alexa Fluor® 594	100 µg	350816
		APC	25 tests   100 tests	350807   350808
		LEAF™	500 µg	350804
		PE	100 tests   25 tests	350805   350806
		PE/Cy7	25 tests   100 tests	350811   350812
		PerCP/Cy5.5	25 tests   100 tests	350813   350814
		Purified	100 µg	350802
CD338 (ABCG2)	5D3	CD334 (FGFR4)	4FR6D3	
		Purified	100 µg	324302
		APC	100 tests	332020
		FITC	100 tests	332014
		Pacific Blue™	100 µg	332012
CD349 (Frizzled-9)	W3C4E11	CD338 (ABCG2)	5D3	
		PE	25 tests   100 tests	332007   332008
		PerCP/Cy5.5	100 tests	332018
		Biotin	100 µg	326704

Specificity	Clone	Format	Size	Cat. No.	Specificity	Clone	Format	Size	Cat. No.
FOX3 (NeuN)	1B7	Purified	25 µg   100 µg	326701   326702			Brilliant Violet 605™	25 tests   100 tests	323031   323032
		Purified	100 µL	834501			Brilliant Violet 650™	25 tests   100 tests	323033   323034
FOXD3	Poly6317	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	631701   631702			FITC	25 tests   100 tests	323003   323004
Gli-1	Poly6424	Purified	50 µL	642401			Pacific Blue™	25 tests   100 tests	323021   323022
MAP1B	AA9						100 µg		323024
MAP2	AA6	Purified	100 µL	828101			PE	25 tests   100 tests	323005   323006
MAP2	Poly28225	Purified	50 µL	822501			PE/Cy5	25 tests   100 tests	323013   323014
MAP2	SMI 52	Purified	100 µL	801801			PE/Cy7	25 tests   100 tests	323029   323030
MCM2	Poly6022	Purified	50 µL (5 Western blots)	602201			PE/Dazzle™ 594	25 tests   100 tests	323037   323038
MCM2	Poly6027	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	602701   602702			PerCP	100 tests	323018
NFATc2	16A12A31	Purified	100 µg	658402			PerCP/Cy5.5	25 tests   100 tests	323019   323020
NKX2-1 (TTF-1)	14D3A28	Purified	100 µg	655402			Purified	100 µg	323002
Notch 1	HMN1-12	Alexa Fluor® 647	25 µg	130611			Purified (MaxPar® Ready)	100 µg	323035
		APC	25 µg	130613	SSEA-1 (CD15)	HI98	Alexa Fluor® 488	100 tests	301910
		Biotin	50 µg	130605			APC	25 tests   100 tests	301907   301908
		Brilliant Violet 421™	125 µL	130615			Biotin	25 µg   100 µg	301913   301914
		PE	50 µg   200 µg	130607   130608			FITC	25 tests   100 tests	301903   301904
Notch 1	MHN1-519	APC	Purified	500 µg			PE	25 tests   100 tests	301905   301906
		LEAF™	25 tests   100 tests	352107   352108			Purified	100 µg	301902
		PE	500 µg	352104	SSEA-1 (CD15)	MC-480	Alexa Fluor® 488	25 tests   100 tests	125609   125610
		Purified	25 tests   100 tests	352105   352106			Alexa Fluor® 647	25 tests   100 tests	125607   125608
Notch 1	mN1A	Biotin	100 µg	352102			Biotin	25 µg   100 µg	125603   125604
		PE	25 µg   100 µg	629103   629104			Brilliant Violet 421™	25 tests   100 tests	125613   125614
		Purified	25 µg   100 µg	629101   629102			FITC	25 tests   100 tests	125611   125612
Notch 2	HMN2-25	APC	25 tests   100 tests	348305   348306			PE	25 tests   100 tests	125605   125606
		PE	25 tests   100 tests	348303   348304			Purified	100 µg	125602
Notch 2	HMN2-35	APC	Purified	25 µg	SSEA-4	MC-813070	Alexa Fluor® 488	25 tests   100 tests	330411   330412
		PE	25 µg   100 µg	348301			Alexa Fluor® 594	100 µg	330414
NSE	NSE-P1	Purified	200 µL	804901			Alexa Fluor® 647	25 tests   100 tests	330407   330408
NSE	NSE-P2	Purified	200 µL	804501			APC	25 tests   100 tests	330417   330418
Pax-6	Poly19013	Purified	100 µL	901301			Biotin	100 µg	330404
PCNA	PC10	Alexa Fluor® 488	25 tests	307909			FITC	25 tests   100 tests	330409   330410
		Alexa Fluor® 594	100 µg	307914			PE	25 tests   100 tests	330405   330406
		Alexa Fluor® 647	100 tests	307912			PE/Cy7	25 tests   100 tests	330419   330420
		Biotin	100 µg	307904			PE/Dazzle™ 594	25 tests   100 tests	330415   330416
		PE	100 tests	307908			Purified	25 µg   100 µg	330401   330402
		Purified	25 µg   100 µg	307901   307902	STAT3	4G4B45	Alexa Fluor® 594	100 µg	678003
Prox1	Poly19252	Serum	200 µL	925201			Direct-Blot™	100 µL (20 Western blots)	678005
RUNX1	1C5B16	Purified	100 µg	659302			PE	25 tests   100 tests	678007   678008
SOX2	14A6A34	Alexa Fluor® 488	25 µg   100 µg	656109   656110			Purified	100 µg	678002
		Alexa Fluor® 594	100 µg	656106	STAT3	Poly6246	Purified	50 µL (5 Western Blots)   200 µL (20 Western Blots)	624601   624602
		Alexa Fluor® 647	100 µg	656108			13A3-1	Alexa Fluor® 488	25 tests   100 tests
		Brilliant Violet 421™	100 µg	656114			Alexa Fluor® 647	25 tests   100 tests	651005   651006
		Pacific Blue™	25 tests   100 tests	656111   656112			Brilliant Violet 421™	25 tests   100 tests	651007   651008
		PE	25 tests   100 tests	656103   656104			Direct-Blot™	100 µL (20 Western blots)	651009   651010
		Purified	100 µg	656102			PE	25 tests   100 tests	651011
SOX2	Poly6519	Purified	50 µL   200 µL	651901   651902			PE/Cy5	25 tests   100 tests	651003   651004
SOX2 (NH2 terminus)	Poly6308	Purified	50 µL   200 µL	630801   630802			Purified	25 µg   100 µg	651013   651014
SSEA-1 (CD15)	P12	Tissue Culture Supernatant	1 ml	912901	TCF3 (E2A)	8F2A12	Purified	100 µg	651001   651002
SSEA-1 (CD15)	FH6	Alexa Fluor® 488	25 tests   100 tests	368105   368106			Purified	100 µL (20 Western blots)	674101
		Alexa Fluor® 647	25 tests   100 tests	368103   368104			PE	25 tests   100 tests	818001
		PE	25 tests   100 tests	368107   368108	Vimentin	O91D3	Alexa Fluor® 594	100 µg	677804
		Purified	100 µg	368102			Alexa Fluor® 647	25 µg	677807
SSEA-1 (CD15)	W6D3	Alexa Fluor® 488	100 tests	323010			Direct-Blot™	100 µL (20 Western blots)	677805
		Alexa Fluor® 647	100 tests	323012			Purified	25 µg   100 µg	677801   677802
		Alexa Fluor® 700	100 tests	323026	Vimentin	Poly29191	Purified	100 µL	919101
		APC	25 tests   100 tests	323007   323008			Purified	100 µL	904501
		APC/Fire™ 750	25 tests   100 tests	323041   323042	Vimentin	Wim 3B4	Purified	250 µL	
		Biotin	100 µg	323016					
		Brilliant Violet 421™	25 tests   100 tests	323039   323040					
		Brilliant Violet 510™	25 tests   100 tests	323027   323028					

## Cell Structure Antibodies

Specificity	Clone	Format	Size	Cat. No.
Abi-1	400	Purified	200 µL	811401
Alpha Skeletal Muscle Actin	Alpha Sr-1	Tissue Culture Supernatant	250 µL	904701
Alpha Smooth Muscle Actin	1A4	Tissue Culture Supernatant	250 µL	904601
Alpha β Crystallin	Poly0979	Purified	200 µL   500 µL	907901   907902
Alpha-I Spectrin	17C7	Purified	200 µL	803101
Alpha-II Spectrin	D8B7	Tissue Culture Supernatant	200 µL	803201
CLIC4 N-Terminal	Poly0984	Purified	100 µL	908401
COL17A1	NC16A-3	Purified	1 ml	917101
Cytokeratin 10	DE-K10	Tissue Culture Supernatant	250 µL	904301
Cytokeratin 18	5E8/CK-18	Purified	100 µL	914301
Cytoplasmic Dynein Intermediate Chain	74.1	Purified	100 µL	904901
Flightless-I Protein	116.4	Purified	100 µL	907701
Giantin	Poly19087	Alexa Fluor® 488	100 µL	908701
Giantin	Poly19243	Serum	200 µL	924302
GPP130	Poly19238	Serum	200 µL	923801
Involucrin	Poly19244	Serum	200 µL	924401
Keratin 1	Poly19056	Purified	100 µL	905601
KIF3A	K2.4	Purified	200 µL	909001
Kinesin Heavy Chain	SUK-4	Purified	200 µL	908901
Lamin A	Poly19234	Serum	100 µL	923401
Lamin A/C	XB10	Purified	100 µL	918901
LASP1	8C6	Purified	100 µL	909301
MAD2	Poly19246	Serum	200 µL	924601
mAKAP	OR017.720	Purified	100 µL	923201
MAN2A1 (Mannosidase II)	53FC3	Ascites	200 µL	923101
MAP1B	AA9			
MAP2	AA5			
MAP2	Poly18406	Serum	100 µL	840601
MAP2	AA6	Purified	100 µL	828101
MAP2	Poly28225	Purified	50 µL	822501
Mouse Keratin 6A	Poly19057	Purified	100 µL	905701
Myosin Heavy Chain	H11	Ascites	100 µL	922701
Myosin Heavy Chain II-A	Poly19098	Purified	100 µL	909801
Myosin Heavy Chain II-B	Poly19099	Purified	100 µL	909901
Myosin II (pan reactive)	C5C.S2	Tissue Culture Supernatant	100 µL	909401
Myosin Phosphatase	Poly19251	Serum	100 µL	925101
Nesprin-1	Poly19027	Purified	100 µL	902701
NMHC II-C	Poly19192	Purified	100 µL	919201
Nuclear Pore Complex Proteins	MAb14	Direct-Blot™	100 µL (20 Western blots)	902905
		Purified	100 µL   500 µL	902901   902902
NUP153	QE5	Alexa Fluor® 594	100 µg	906204
		Purified	100 µL	906201
Pericentrin	Poly19237	Serum	200 µL	923701
β-Actin	Poly6221	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	622101   622102
β-Actin	2F1-1	Alexa Fluor® 594	100 µg	643804
		Brilliant Violet 421™	100 µg	643806
		Direct-Blot™	100 µL (20 Western blots)	643807
		Purified	25 µg   100 µg	643801   643802
Vimentin	Vim 3B4	Purified	250 µL	904501
Vimentin	Poly29191	Purified	100 µL	919101
Vimentin	O91D3	Alexa Fluor® 594	100 µg	677804
		Alexa Fluor® 647	25 µg	677807
		Direct-Blot™	100 µL (20 Western blots)	677805
		Purified	25 µg   100 µg	677801   677802

## Cell Marker ELISA Kit

Description	Size	Cat. No.
LEGEND MAX™ Human sICAM-1/CD54 ELISA Kit with Pre-coated Plates	1 Pre-coated Plate 5 Pre-coated Plates	440207   440208

# Protein Trafficking & Clearance

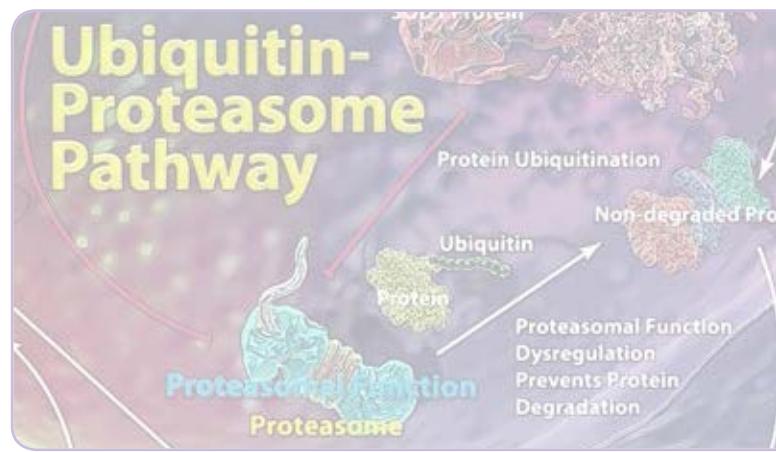
Aberrant protein trafficking and clearance contributes to the pathological accumulation of misfolded proteins commonly found in neurodegenerative disorders. BioLegend offers a number of products for key proteins that function as molecular chaperones, protein modifiers, and vesicular markers to facilitate research into mechanisms underlying impaired protein trafficking and degradation.

## Ubiquitin & Ubiquitin Activating Enzymes

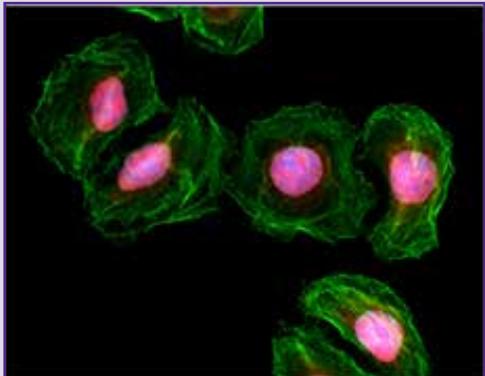
Ubiquitin is a small (8.5 kD) regulatory protein that is ubiquitously expressed in tissues of eukaryotic organisms. There are four genes in the human genome that produce ubiquitin: UBB, UBC, UBA52 and RPS27A. UBA52 and RPS27A genes code for a single copy of ubiquitin fused to the ribosomal proteins L40 and S27a, respectively. The UBB and UBC genes code for polyubiquitin precursor proteins. Ubiquitination is a post-translational modification where a ubiquitin subunit is attached to a protein. Addition of ubiquitin can signal for degradation via the proteasome, alter cellular location, promote or prevent protein interactions, or affect activity. Ubiquitination is carried out stepwise by ubiquitin-activating enzymes (E1s), ubiquitin-conjugating enzymes (E2s), and ubiquitin ligases (E3s), respectively. The cascade results in ubiquitin binding to lysine residues on the protein or to the amino group of the protein's N-terminus. A frameshift mutation in ubiquitin B can result in a truncated peptide missing the C-terminal glycine. This abnormal peptide, known as UBB+1, has been shown to accumulate selectively in Alzheimer's disease and other tauopathies.

### Antibodies to Ubiquitin & Ubiquitin Activating Enzymes

Specificity	Clone	Format	Size	Cat. No.
Ubiquitin	P4D1	Purified	25 µg   100 µg	646301   646302
		Direct-Blot™ HRP	100 µL	646303
Ubiquitin	P4G7	Ascites	200 µL   500 µL	838701   838702
Ubiquitin, 50-65 (Bound)	Mar-39	Ascites	200 µL	835001
Ubiquitin, 64-76 (free/bound)	25-May	Ascites	200 µL	834901
E1 Ubiquitin Activating Enzyme	2G2.3.5	Purified	100 µg	932002
		Alexa Fluor® 594	100 µg	679404

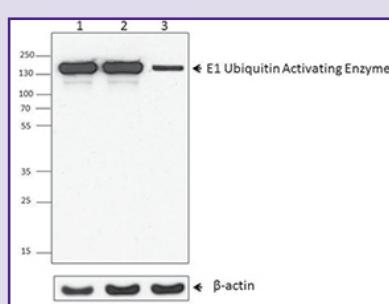


### E1 Ubiquitin Activating Enzyme



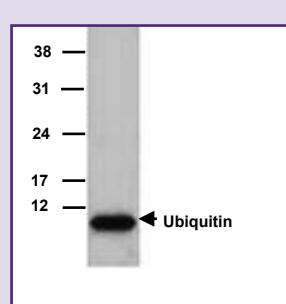
HeLa cells co-stained with anti-E1 ubiquitin activating enzyme antibody (clone 2G2.3.5, red) and Phalloidin conjugated to Alexa Fluor® 488 (green). Nuclei were counterstained with DAPI (blue).

### E1 Ubiquitin Activating Enzyme



Western blot analysis of anti-E1 ubiquitin activating enzyme antibody (clone 2G2.3.5). Ln 1: HeLa cell lysate; Ln 2: Jurkat cell lysate; Ln 3: Raw264.7 cell lysate. β-actin antibody (Poly6221) was used as a loading control.

### Ubiquitin



Western blot analysis of anti-ubiquitin antibody (clone P4D1) on mouse recombinant ubiquitin.

## Protein Clearance Antibodies

Specificity	Clone	Format	Size	Cat. No.
Apo E	E6D7	Purified	200 µL   1 ml	803401   803403
Apo E	D6E10	Purified	200 µL   1 ml	803301   803303
Apo E4	9D11	Purified	200 µL   1 ml	813701   813702
Apo E4	5G7	Purified	200 µL	813601
Apo E4	5A9	Purified	100 µL	811701
Apo E4	5B5/ApoE4	Purified	100 µL	811601
Apo J (Clusterin)	Poly18133	Purified	50 µg	813301
c-Abl	8E9	Purified	100 µL	831901
Cathepsin A	15D2C93	Purified	100 µg	683902
Cathepsin B	15D10C39	Purified	100 µg	680902
Cathepsin D	16E12C58	Purified	100 µg	678502
CD107a (LAMP-1)	1D4B	Alexa Fluor® 488	25 µg   100 µg	121607   121608
		Alexa Fluor® 594	100 µg	121622
		Alexa Fluor® 647	25 µg   100 µg	121609   121610
		APC	25 µg   100 µg	121613   121614
		APC/Cy7	25 µg   100 µg	121615   121616
		Biotin	50 µg   200 µg	121603   121604
		Brilliant Violet 421™	125 µL	121617
		FITC	50 µg   200 µg	121605   121606
		PE	50 µg   200 µg	121611   121612
		PE/Cy7	25 µg   100 µg	121619   121620
		PE/Dazzle™ 594	25 µg   100 µg	121623   121624
		PerCP/Cy5.5	25 µg   100 µg	121625   121626
		Purified	50 µg   200 µg	121601   121602
CD107a (LAMP-1)	H4A3	Alexa Fluor® 488	25 tests   100 tests	328609   328610
		Alexa Fluor® 647	25 tests   100 tests	328611   328612
		APC	25 tests   100 tests	328619   328620
		APC/Cy7	25 tests   100 tests	328629   328630
		Biotin	100 µg	328604
		Brilliant Violet 421™	25 tests   100 tests	328625   328626
		Brilliant Violet 510™	25 tests   100 tests	328631   328632
		Brilliant Violet 605™	25 tests   100 tests	328633   328634
		Brilliant Violet 650™	25 tests   100 tests	328637   328638
		Brilliant Violet 711™	25 tests   100 tests	328639   328640
		Brilliant Violet 785™	25 tests   100 tests	328643   328644
		FITC	25 tests   100 tests	328605   328606
		Pacific Blue™	25 µg   100 µg	328623   328624
		PE	25 tests   100 tests	328607   328608
		PE/Cy7	25 tests   100 tests	328617   328618
		PE/Dazzle™ 594	25 tests   100 tests	328645   328646
		PerCP	25 tests   100 tests	328641   328642
		PerCP/Cy5.5	25 tests   100 tests	328615   328616
		Purified	25 µg   100 µg	328601   328602
		Purified (MaxPar® Ready)	100 µg	328635
CD107a (LAMP-1)	1D4B	Alexa Fluor® 488	25 µg   100 µg	121607   121608
		Alexa Fluor® 594	100 µg	121622
		Alexa Fluor® 647	25 µg   100 µg	121609   121610
		APC	25 µg   100 µg	121613   121614
		APC/Cy7	25 µg   100 µg	121615   121616
		Biotin	50 µg   200 µg	121603   121604
		Brilliant Violet 421™	125 µL	121617
		FITC	50 µg   200 µg	121605   121606
		PE	50 µg   200 µg	121611   121612
		PE/Cy7	25 µg   100 µg	121619   121620
		PE/Dazzle™ 594	25 µg   100 µg	121623   121624
		PerCP/Cy5.5	25 µg   100 µg	121625   121626
		Purified	50 µg   200 µg	121601   121602
CD107b (LAMP-2)	H4B4	FITC	25 tests   100 tests	354305   354306
		PE	25 tests   100 tests	354303   354304
		Purified	25 µg   100 µg	354301   354302
CD107b (LAMP-2)	ABL-93	Purified	100 µL	816101
Clathrin Heavy Chain (CLTCL2)	TD.1	Purified	100 µL	813901

Specificity	Clone	Format	Size	Cat. No.
Clathrin Light Chain (CLTA)	CON.1	Purified	100 µL	811501
DJ-1 (PARK7)	Poly18081	Purified	50 µg	808101
DJ-1 (PARK7)	E2.19	Purified	200 µL   1 ml	813801   813803
HSC70 (HSPA8)	42615	Purified	100 µg	682102
HSF1	4B4	Purified	100 µL	825801
HSF2	300	Purified	100 µL	829301
Hsp70	4F8	Purified	100 µL	818101
Hsp70	W27	Alexa Fluor® 488	25 tests   100 tests	648003   648004
		Direct-Blot™	100 µL (20 Western blots)	648005
Hsp90a	K41007	Purified	25 µg   100 µg	648001   648002
Hsp90a/β	K3720A	Purified	100 µg	661702
Hsp90a/β	3H3C27	Direct-Blot™	100 µL (20 Western blots)	675403
		Purified	100 µg	675402
Insulin Degrad-ing Enzyme (IDE)	Poly18403	Serum	100 µL	840301
p62 (SQSTM1)	1B5.H9	Purified	100 µL	814801
p62	Poly6477	Purified	50 µL   200 µL	647701   647702
Pan-LC3-A	CV698.792.28			
Parkin	Prk 109	Purified	200 µL	807601
Parkin	Prk 8	Purified	200 µL   500 µL 1 ml	808501   808502
PINK1	N4/15	Purified	100 µL	832901
PINK1	5E1.D8	Purified	100 µL	834801
PINK1	DU46-1.1	Purified	100 µg	846202

## Protein Clearance Recombinant Proteins

Description	Size	Cat. No.
Cathepsin E (CTSE)	10 µg   25 µg 100 µg	756602   756604   756606

# Mitochondrial Function

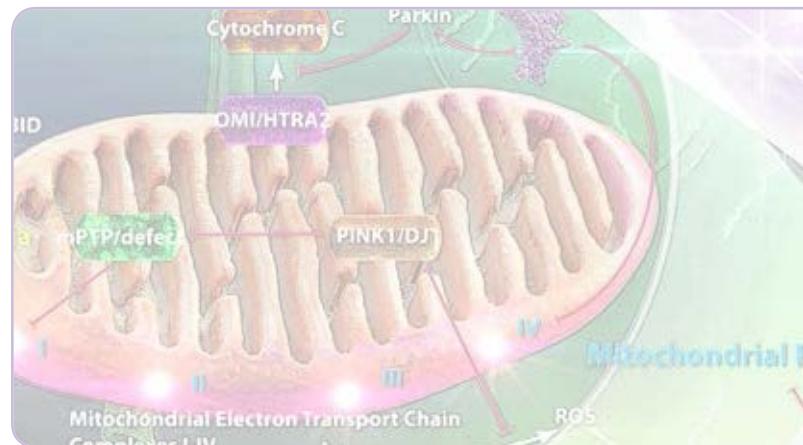
Mitochondria are referred to as the power houses of the cell, meaning that they are the suppliers of the biological energy of a cell. Impaired mitochondrial function has been linked to a number of diseases, including neurodegenerative disorders, highlighting the importance of these organelles in maintaining healthy cells. BioLegend has a growing offering in the area of mitochondrial markers, including those relevant to neurodegeneration.

## Mitochondrial Function Antibodies

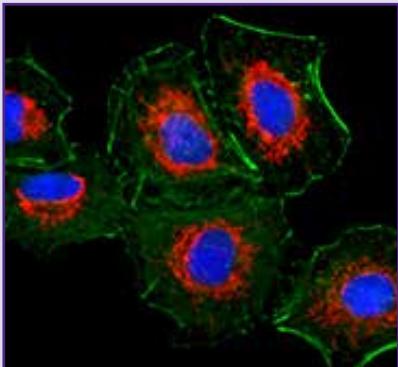
Specificity	Clone	Format	Size	Cat. No.
DJ-1 (PARK7)	Poly18081	Purified	50 µg	808101
DJ-1 (PARK7)	E2.19	Purified	200 µL   1 ml	813801   813803
ERAB	5F3	Purified	500 µL	834402
Grp75 (Mortalin)	N52A/42	Purified	100 µL	818801
HSP60	P83G8	Direct-Blot™	100 µL (20 Western blots)	681503
		Purified	100 µg	681502
LRRK2	MC.028.83.76.242	Purified	100 µL	808201
LRRK2	8G10	Purified	100 µL	844401
LRRK2 (NH2 terminus)	N138/6	Purified	100 µL	818901
Mitofusin-1	1G3.B6	Purified	100 µL	814601
Mitofusin-1	N111/24	Purified	100 µL	831101
Mitofusin-2	N153/5	Purified	100 µL	820301
Nhedc2	Poly6485	Purified	25 µL   100 µL	648501   648502
Pancortin	K96/7	Purified	100 µL	827201
PARIS (ZNF746)	N196/16	Purified	100 µL	820601
Parkin	Prk 109	Purified	200 µL	807601
Parkin	Prk 8	Purified	200 µL   500 µL 1 ml	808501   808502
PINK1	N4/15	Purified	100 µL	832901
PINK1	5E1.D8	Purified	100 µL	834801
PINK1	DU46-1.1	Purified	100 µg	846202
VDAC1	N152B/23	Purified	100 µL	820701
UCP2	Poly6159	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	615901   615902

## Mitochondrial Function Probes

Description	Size	Cat. No.
MitoSpy™ Green FM	5 x 50 µg   20 x 50 µg	424805   424806
MitoSpy™ Orange CMTMRos	5 x 50 µg   20 x 50 µg	424803   424804

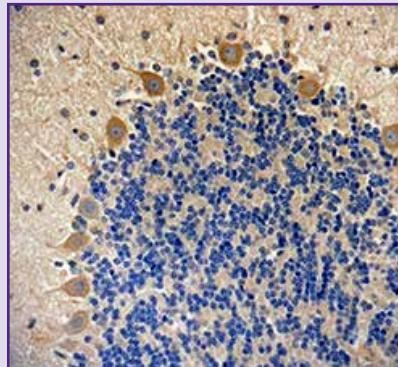


HSP60



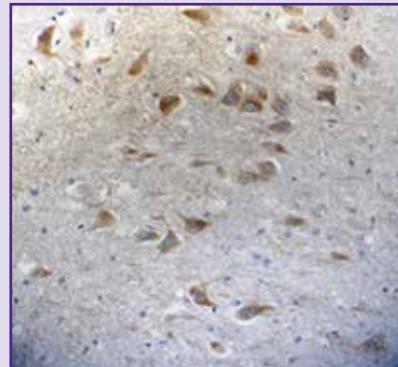
A549 cells co-stained with anti-HSP60 antibody (clone P83G8, red) and Actin filaments labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue).

Mitofusin-2



IHC staining of anti-Mitofusin-2 antibody (clone N153/5) on formalin-fixed paraffin-embedded rat brain tissue.

PINK1



IHC staining of anti-PINK1 antibody (clone DU46-1.1) on formalin-fixed paraffin-embedded Parkinson's disease brain tissue.

# Epigenetics

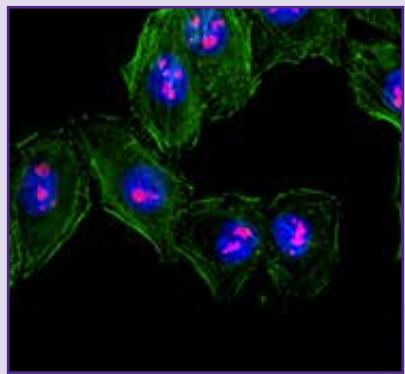
BioLegend is building its portfolio to allow researchers to investigate epigenetics, the study of heritable changes in gene expression that do not involve alterations in the DNA sequence. These epigenetic changes can modify the chromatin or DNA to silence or enhance gene expression. Epigenetics plays an important role in a diverse set of processes in the nervous system, including synaptic plasticity and memory formation, stress response, age-related memory decline, psychiatric and neurodegenerative disorders.

## Epigenetics Antibodies

Specificity	Clone	Format	Size	Cat. No.
CRISPR (CAS9)	7A9	Purified	100 µg	844301
Dicer	N167/7	Purified	100 µL	820201
DNMT1	W15077A	Purified	100 µg	687502
H2A.X	2F3	Alexa Fluor® 488	25 tests   100 tests	613405   613406
		Alexa Fluor® 594	100 µg	613410
		Alexa Fluor® 647	25 tests   100 tests	613407   613408
		APC	25 tests   100 tests	613415   613416
		Direct-Blot™	100 µL (20 Western blots)	613417
		FITC	25 tests   100 tests	613403   613404
		PE	25 tests   100 tests	613411   613412
		PerCP/Cy5.5	25 tests   100 tests	613413   613414
		Purified	25 µg   100 µg	613401   613402
HDAC1	10E2/HDAC1	Purified	100 µL	815101
HDAC2	3F3/HDAC2	Purified	100 µL	815201
HDAC3	W15097A	Alexa Fluor® 594	25 µg	685203
		Purified	100 µg	685202
HDAC7	11C7C49	Purified	100 µg	683502
HDAC8	W15090A	Purified	100 µg	685502
HDAC3	3G6	Purified	100 µL	815301
Histone H3 (C-terminus)	1B1-B2	Purified	100 µL	819401
Histone H3 Dimethyl (Lys9)	5E5-G5	Purified	100 µL	815501

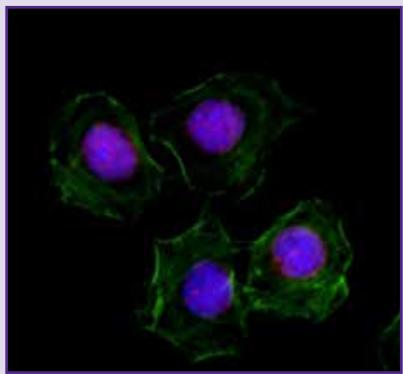
Specificity	Clone	Format	Size	Cat. No.
Histone H3 Monomethyl (Lys9)	7E7.H12	Purified	100 µL	824201
Histone H3 Non-methyl (Lys9)	9B1-2G6	Purified	100 µL	815701
Histone H3 Trimethyl (Lys9)	6F12-H4	Purified	100 µL	815601
Histone H4 Monomethyl (Lys20)	5E10-D8	Purified	100 µL	828001
Histone H4 Trimethyl (Lys 20)	6F8-D9	Purified	100 µL	827701
Histone Lysine Demethylase (NO66)	8A7-G10	Purified	100 µg	844902
		Ultra-LEAF™	100 µg	844903
LCMT1 (PPM1)	4A4	Purified	100 µL	824501
MECP2	N227/21	Purified	100 µL	814001
RAG2	3G4A26	Purified	100 µg	654902

Histone H2B



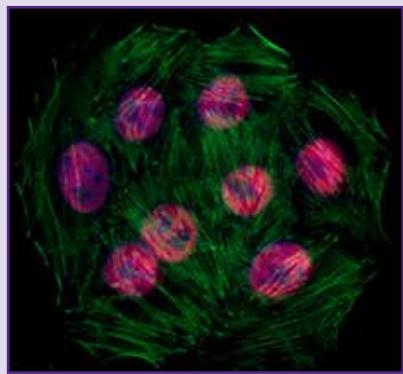
HeLa cells co-stained with anti-Histone H2B antibody (Poly26887, red) and Actin filaments labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue).

HDAC8



HeLa cells co-stained with anti-human HDAC8 antibody (clone W15090A, red) and Actin filaments labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue).

HDAC3



HeLa cells co-stained with Alexa Fluor® 594 anti-HDAC3 antibody (clone W15097A, red) and Actin filaments labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue).

# Cell Death

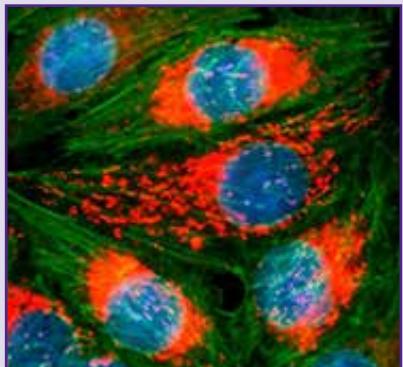
BioLegend offers a wide range of assays, probes and markers for assessment of cell death, cell viability and proliferation. Many of our assays are available in fluorescent and colorimetric formats ideal for flow cytometry, western blot analysis, and microscopy.

## Cell Death Antibodies

Specificity	Clone	Format	Size	Cat. No.
Akt Phospho (Ser473)	Poly6490	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	649001   649002
AKT1	O94E10	Purified	100 µg	680302
AKT2	P81B6	Purified	100 µg	680202
ASC	O93E9	Purified	100 µg	676502
ASC (TMS-1)	HASC-71	PE	25 tests   100 tests	653903   653904
		Purified	100 µg	653902
Bax	6A7	Purified	25 µg   100 µg	633801   633802
Bcl-2	BCL/10C4	Alexa Fluor® 488	25 µg   100 µg	633505   633506
		Alexa Fluor® 647	25 µg   100 µg	633509   633510
		FITC	25 µg   100 µg	633503   633504
		PE	25 µg   100 µg	633507   633508
		PE/Cy7	25 µg   100 µg	633511   633512
		Purified	25 µg   100 µg	633501   633502
		Alexa Fluor® 488	25 µg   100 µg	633505   633506
		Alexa Fluor® 647	25 µg   100 µg	633509   633510
		FITC	25 µg   100 µg	633503   633504
		PE	25 µg   100 µg	633507   633508
		PE/Cy7	25 µg   100 µg	633511   633512
		Purified	25 µg   100 µg	633501   633502
Bcl-2	100	Alexa Fluor® 488	25 tests   100 tests	658703   658704
		Alexa Fluor® 647	25 tests   100 tests	658705   658706
		Brilliant Violet 421™	25 tests	658709
		PE	25 tests   100 tests	658707   658708
		Purified	25 µg   100 µg	658701   658702
Bcl-XS/L	2H12	Purified	25 µg   100 µg	633901   633902
CARD9	13D9C60	Purified	100 µg	679102
Caspase-1	5B10	Purified	25 µg   100 µg	645101   645102
Caspase-3	Poly6341	Purified	125 µL (5 Western blots)	634101
Caspase-3	43191	Biotin	100 µg	622704
		Purified	25 µg   100 µg	622701   622702
Caspase-7	20F3	Purified	25 µg	645301
Caspase-8	1H10	Purified	25 µg	645501
Caspase-9	96-2-22	Purified	25 µg   100 µg	621901   621902
Caspase-10	25C2	Purified	100 µg	645202
Caspase-11	Cas11.17D9	Purified	25 µg   100 µg	647201   647202

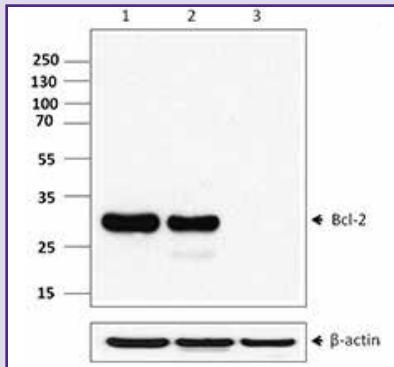
Specificity	Clone	Format	Size	Cat. No.
Caspase-12	14F7	Purified	25 µg	645401
CD95 (Fas)	DX2	Alexa Fluor® 488	25 tests   100 tests	305615   305616
		Alexa Fluor® 647	100 tests	305618
		APC	25 tests   100 tests	305611   305612
		APC/Cy7	25 tests   100 tests	305635   305636
		APC/Fire™ 750	25 tests   100 tests	305637   305638
		Biotin	100 µg	305604
		Brilliant Violet 421™	25 tests   100 tests	305623   305624
		Brilliant Violet 510™	25 tests   100 tests	305639   305640
		Brilliant Violet 605™	25 tests   100 tests	305627   305628
		Brilliant Violet 650™	25 tests	305641
		Brilliant Violet 711™	25 tests	305643
		Brilliant Violet 785™	25 tests   100 tests	305645   305646
		FITC	25 tests   100 tests	305605   305606
		LEAF™	50 µg   500 µg	305613   305614
		Pacific Blue™	100 tests	305619
		PE	25 tests   100 tests	305607   305608
		PE/Cy5	100 tests	305610
		PE/Cy7	25 tests   100 tests	305621   305622
		PE/Dazzle™ 594	25 tests   100 tests	305633   305634
		PerCP/Cy5.5	25 tests   100 tests	305629   305630
		Purified	100 µg	305602
		Purified (MaxPar® Ready)	100 µg	305631
		Alexa Fluor® 488	25 tests   100 tests	305615   305616
		Alexa Fluor® 647	100 tests	305618
		APC	25 tests   100 tests	305611   305612
		APC/Cy7	25 tests   100 tests	305635   305636
		APC/Fire™ 750	25 tests   100 tests	305637   305638
		Biotin	100 µg	305604
		Brilliant Violet 421™	25 tests   100 tests	305623   305624
		Brilliant Violet 510™	25 tests   100 tests	305639   305640
		Brilliant Violet 605™	25 tests   100 tests	305627   305628
		Brilliant Violet 650™	25 tests	305641
		Brilliant Violet 711™	25 tests	305643
		Brilliant Violet 785™	25 tests   100 tests	305645   305646
CD95 (Fas)	DX2			

CARD9



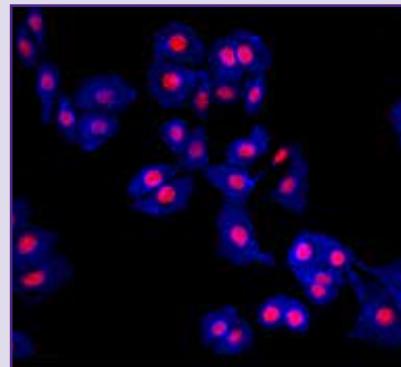
HeLa cells co-stained with anti-CARD9 antibody (clone 13D9C60, red) and Actin filaments labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue).

Bcl-2



Western blot analysis of anti-Bcl-2 antibody (clone 100). Lane 1: THP-1; Lane 2: PBMC; Lane 3: Raw264.7. β-actin was used as loading control.

EGFR & DRAQ5



HeLa cells stained with Brilliant Violet 421™ anti-EGFR antibody (clone AY13, blue). Nuclei were counterstained with DRAQ5 (red).

## Cell Death Antibodies (Continued)

Specificity	Clone	Format	Size	Cat. No.
CD95 (Fas)	EOS9.1	FITC	25 tests   100 tests	305605   305606
		LEAF™	50 µg   500 µg	305613   305614
		Pacific Blue™	100 tests	305619
		PE	25 tests   100 tests	305607   305608
		PE/Cy5	100 tests	305610
		PE/Cy7	25 tests   100 tests	305621   305622
		PE/Dazzle™ 594	25 tests   100 tests	305633   305634
		PerCP/Cy5.5	25 tests   100 tests	305629   305630
		Purified	100 µg	305602
		Purified (MaxPar® Ready)	100 µg	305631
CD178 (FasL)	MFL3	LEAF™	50 µg   500 µg	305703   305704
		Purified	100 µg	305702
		Biotin	50 µg	106603
		LEAF™	500 µg	106608
CD178 (FasL)	MFL4	PE	50 µg   200 µg	106605   106606
		Purified	500 µg	106602
		LEAF™	500 µg	106706
		NOK-1	Biotin	100 µg
CD178.1 (FasL)	Kay-10	LEAF™	50 µg   500 µg	306408   306409
		PE	25 tests   100 tests	306406   306407
		Purified	100 µg	306402
		LEAF™	500 µg	106808
Granzyme A	3G8.5	PE	50 µg	106805
		Purified	25 µg   100 µg	149703   149704
Granzyme A	CB9	PE	100 µg	149702
		Alexa Fluor® 488	100 tests	507212
		Alexa Fluor® 594	100 µg	507218
		Alexa Fluor® 647	100 tests	507214
		Alexa Fluor® 700	100 µg	507210
		FITC	100 tests	507204
Granzyme B	12F9B65	Pacific Blue™	100 µg   25 µg	507207   507208
		PE	100 tests	507206
		PerCP/Cy5.5	25 tests   100 tests	507215   507216
		Purified	100 µg	507202
Granzyme B	M3304B06	Purified	25 µg   100 µg	662801   662802
		Purified	100 µg	674602
Granzyme B	O94E6/GZMB	Purified	25 µg   100 µg	674301   674302
		GB11	Alexa Fluor® 647	25 tests   100 tests
		FITC	25 tests	515403
Granzyme K	GM26E7	Pacific Blue™	25 tests   100 tests	515407   515408
		Alexa Fluor® 594	100 µg	370506
		Alexa Fluor® 647	25 tests   100 tests	370503   370504
		Purified	100 µg	370502
Mcl-1	Poly6136	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	613601   613602
Perforin	dG9	Alexa Fluor® 488	100 tests	308108
		Alexa Fluor® 594	100 µg	308124
		Alexa Fluor® 647	25 tests   100 tests	308109   308110
		APC	25 tests   100 tests	308111   308112
		APC/Cy7	25 tests   100 tests	308127   308128
		Brilliant Violet 421™	25 tests   100 tests	308121   308122
		Brilliant Violet 510™	25 tests   100 tests	308119   308120
		FITC	25 tests   100 tests	308103   308104
		Pacific Blue™	25 tests   100 tests	308117   308118
		PE	25 tests   100 tests	308105   308106
Perforin	B-D48	PE/Cy7	25 tests   100 tests	308125   308126
		PerCP/Cy5.5	25 tests   100 tests	308113   308114
		Purified	100 µg	308102
		APC	25 tests   100 tests	353311   353312
		Brilliant Violet 421™	25 tests	353307
		FITC	25 tests   100 tests	353309   353310
		Pacific Blue™	25 tests	353305
		PE	25 tests   100 tests	353303   353304
		PE/Cy7	25 tests   100 tests	353315   353316
		PerCP/Cy5.5	25 tests   100 tests	353313   353314

Specificity	Clone	Format	Size	Cat. No.
Survivin	Poly6147	Purified	50 µL (5 Western blots)   200 µL (20 Western blots)	614701   614702
TICAM-1 (TRIF)	1H4B01	Purified	100 µg	657102
TICAM-2 (TRAM)	9G1B30	Purified	100 µg	659402

## Cell Viability Kits/Nuclear Staining Dyes

Description	Size	Cat. No.
7-AAD Viability Staining Solution	200 tests   500 tests	420403   420404
Pacific Blue™ Annexin V Apoptosis Detection Kit with 7-AAD	100 tests	640926
CFSE Cell Division Tracker Kit	1 kit (5 vials, 100 µg per vial of CFSE, 500 µL DMSO)	423801
DAPI (4',6-Diamidino-2-Phenylindole, Dilactate)	10 mg	422801
Deep Blue Cell Viability™ Kit	25 ml   100 ml	424701   424702
DRAQ5™	50 µL	424101
DRAQ7™	1 ml	424001
LEGENDplex™ Human CD8/NK Panel	100 tests	740267
Propidium Iodide Solution	2 ml	421301
Tag-it Violet™ Proliferation and Cell Tracking Dye	1 kit (5 vials, 122.25 µg per vial, 500 µL DMSO)	425101
TetraZ™ Cell Counting Kit	500 tests   100 tests 2000 tests	424501   424502   424503
Zombie Aqua™ Fixable Viability Kit	100 tests   500 tests	423101   423102
Zombie Green™ Fixable Viability Kit	100 tests   500 tests	423111   423112
Zombie NIR™ Fixable Viability Kit	100 tests   500 tests	423105   423106
Zombie Red™ Fixable Viability Kit	100 tests   500 tests	423109   423110
Zombie UV™ Fixable Viability Kit	100 tests   500 tests	423107   423108
Zombie Violet™ Fixable Viability Kit	100 tests   500 tests	423113   423114
Zombie Yellow™ Fixable Viability Kit	100 tests   500 tests	423103   423104

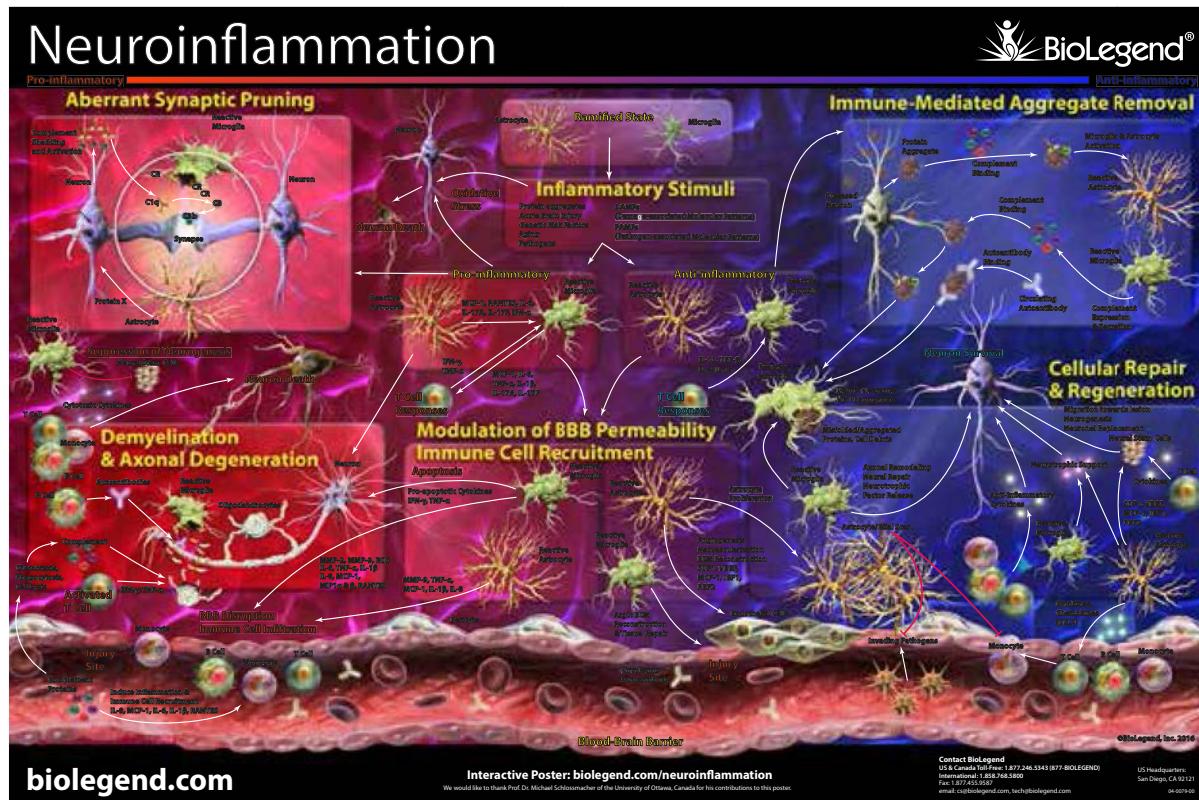
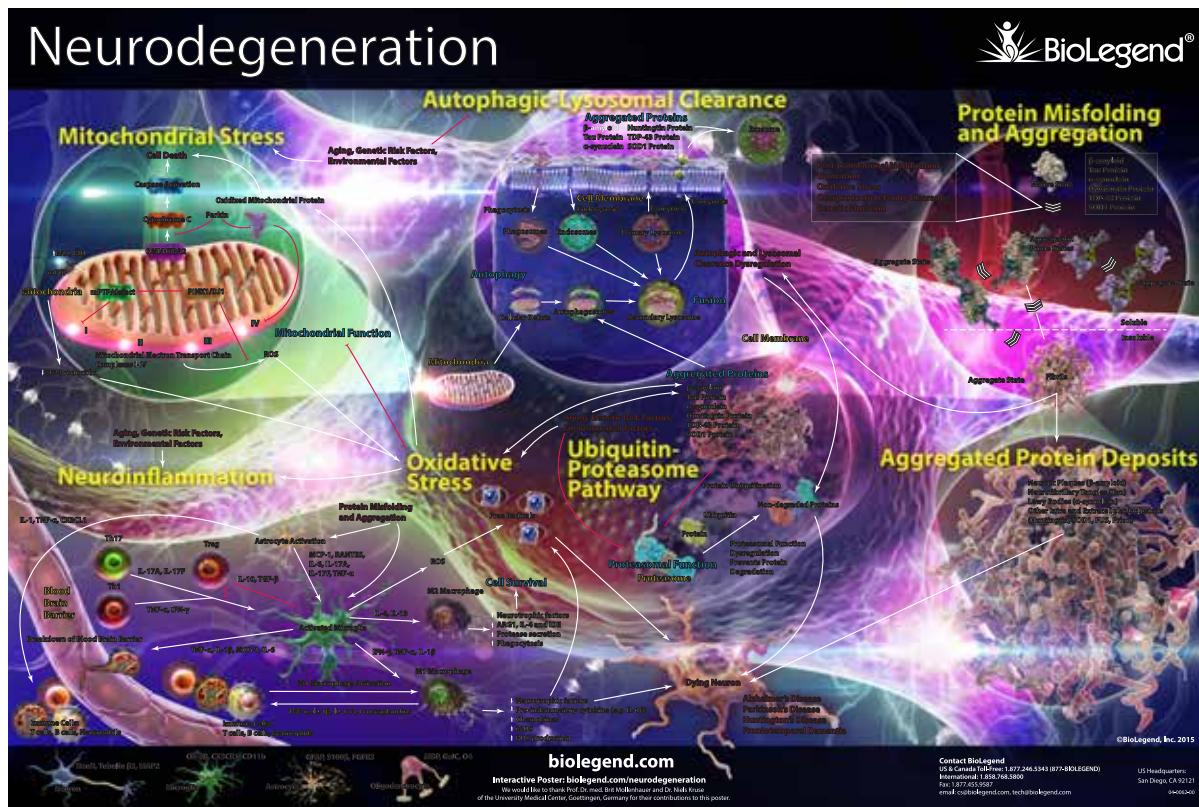
## Cell Death Recombinant Proteins

Description	Size	Cat. No.
Recombinant Human Granzyme A (carrier-free)	10 µg   25 µg	550802   550804
Recombinant Human Granzyme B (carrier-free)	10 µg   25 µg	554902   554904
Recombinant Mouse Granzyme B (carrier-free)	10 µg   25 µg	554802   554804



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### **Technical Service:**

US & Canada Toll-Free: 1.877.273.3103

International: 1.858.768.5801

*email:* [tech@biologend.com](mailto:tech@biologend.com)

### **Headquarters:**

BioLegend

9727 Pacific Heights Blvd.

San Diego, CA 92121

USA

## International Offices

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### **Europe:**

BioLegend

4B Highgate Business Centre

33 Greenwood Place

London NW5 1LB

United Kingdom

Tel: +44 (0) 20 3475 3880

Fax: +44 (0) 20 3318 3271

*email Inquiries:* [infoeurope@biologend.com](mailto:infoeurope@biologend.com)

*email Technical Support:* [techeurope@biologend.com](mailto:techeurope@biologend.com)

### **Japan:**

BioLegend

8F, SB bldg., 1-4-6, Nezu, Bunkyo-ku, Tokyo

113-0031, Japan

Tel: +81-3-3823-9071

Fax: +81-3-3823-9072

*email:* [supportjp@biologend.com](mailto:supportjp@biologend.com)

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