

The Most Cited Antibodies in Neuroscience

When you think Neuroscience, you think of us.

Neuroscience is a heterogeneous field, requiring an integrated analysis of multiple cell types, tissues and organs, using diverse techniques. The next advance in neuroscience will likely rely on antibodies and immunodetection, given that researchers tend to build upon traditional technologies, rather than abandon them. By integrating the antibody expertise and resources of Calbiochem[®], Chemicon[®], Upstate[®], and Linco[®], we are now the most cited provider of neuroscience antibodies. Our vast neuroscience portfolio includes pathway-, cell type-, and state-specific antibodies and neurological disease assays and markers.

We are committed to continually supporting you and your colleagues to get the job done and the data published. CiteAb is a high-quality data provider, supplying the largest database of reagent citations in life science. Accordingly, we are the number one cited supplier for neuroscience antibodies, including the number one cited supplier for the most highly cited targets described below.

RNA binding protein fox-1 homolog 3 (NeuN)

NeuN antibody (NEUronal Nuclei; clone A60) specifically recognizes the DNA-binding, neuronspecific protein NeuN, which is present in most central nervous system (CNS) and peripheral nervous system (PNS) neuronal cell types of all vertebrates tested. Immunohistochemically detectable NeuN protein first appears at developmental time points that correspond with the withdrawal of the neuron from the cell cycle and/or with the initiation of terminal differentiation of the neuron (Mullen et al., 1992).



Fisher Scientific Cat. No.	Description	Citation Rank for Target
MAB377MI	Anti-NeuN Antibody, clone A60	1st
ABN78MI	Anti-NeuN Antibody (rabbit)	3rd
MAB377XMI	Anti-NeuN Antibody, clone A60, Alexa Fluor®488 conjugated	5th



Mouse anti-NeuN **(Cat. No. MAB377)** and Rabbit anti-Substance P Receptor (Cat. No. AB5060) staining of normal rat hippocampus. NeuN immunoreactivity in green and Substance P Receptor immunoreactivity in red. *Photo courtesy of Dr. Robert Sloviter, University of Arizona.*



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Amyloid-beta precursor protein (APP)

The cerebral and vascular plaques associated with Alzheimer's disease (AD) are mainly composed of amyloid-beta peptides (Ab). Ab is derived from cleavage of the amyloid precursor protein (APP) and varies in length from 39 to 43 amino acids. Ab [1-40], Ab [1-42], and Ab [1-43] peptides result from cleavage of APP after residues 40, 42, and 43, respectively. The cleavage takes place by gamma-secretase during the last APP processing step. Ab [1-40], [1-42], and [1-43] peptides are major constituents of the plaques and tangles that occur in AD. Ab antibodies and peptides have been developed as tools for elucidating the biology of AD.

Fisher Scientific Cat. No.	Description	Citation Rank for Target
MAB348MI	Anti-APP A4 Antibody, a.a. 66-81 of APP $\{NT\}$, clone 22C11	1st
AB5078PMI	Anti-Beta-Amyloid 1-42	5th

Choline O-acetyltransferase (ChAT)

Acetylcholine (ACh) is a common neurotransmitter for motor neurons, preganglionic autonomic neurons, postganglionic parasympathetic neurons, a variety of brain regions and some emerging neuron-like stem cells. The metabolism of ACh is relatively simple, involving only two enzymes: choline acetyltransferase (ChAT) for synthesis and acetylcholinesterase (AChE) for degradation. It seems that only cholinergic neurons have significant amounts of ChAT making anti-choline acetyltransferase a useful specific marker.

Fisher Scientific Cat. No.	Description	Citation Rank for Target
AB144PMI	Anti-Choline Acetyltransferase	1st
AB144MI	Anti-Choline Acetyltransferase	2nd
AB143MI	Anti-Choline Acetyltransferase (ChAT)	3rd
AB144P1MLMI	Anti-Choline Acetyltransferase	4th
MAB305MI	Anti-Choline Acetyltransferase Antibody, clone 1E6	5th



Amyloid (β -A4-protein, **Cat. No. MAB348**) staining on Alzheimer's Disease-Hypothalamus. Tissue pretreated with Citrate, pH 6.0. Monoclonal Ab. diluted to 1:80, IHC-Select Detection with HRP-DAB. Immunoreactivity is seen as staining on plaque deposits (dark brown). High mag.



Goat anti-ChAT (Cat. No. AB144P) staining of organotypic slice cultures of septum from 7-day-old rat tissue maintained in culture for 8 days.

More of the top cited neuroscience antibodies

Fisher Scientific Cat. No.	Description
MAB374MI	Anti-Glyceraldehyde-3-Phosphate Dehydrogenase, clone 6C5
MAB3420MI	Anti-Tau-1, clone PC1C6
AB152MI	Anti-Tyrosine Hydroxylase
05-591-MI	Anti-Akt/PKB, PH Domain, clone SKB1
AB3623MI	Anti-Caspase 3, active (cleaved) form
MAB1596MI	Anti-Post Synaptic Density Protein 95, clone 6G6-1C9
MAB1501MI	Anti-Actin, clone C4
MAB3408MI	Anti-Tubulin, beta, clone KMX-1
MAB1976MI	Anti-Integrin aVβ3, clone LM609
AB2253MI	Anti-Doublecortin
MAB1637MI	Anti-Tubulin, beta III isoform, CT, clone TU-20 (Similar to TUJ1)
07-677-IMI	Anti-acetyl-Histone H3 (Lys56)
05-141-0MI	Anti-CD45, clone F10-89-4
AB5038MI	Anti-Synuclein a

Fisher Scientific Cat. No.	Description
AB3080MI	Anti-Green Fluorescent Protein
MABS827MI	Anti-ERK1/2, clone 16A6.1
AB5622MI	Anti-Microtubule-Associated Protein 2 (MAP2)
MAB5266MI	Anti-Neurofilament 200 kDa, clone N52
AB9260MI	Anti-Ki-67
MABN1193MI	Anti-Synaptophysin, clone 10F6.1
ABE457MI	Anti-c-Fos
AB5603MI	Anti-SOX2
06-519-MI	Anti-phospho-CREB (Ser133)
06-863-MI	Anti-CREB
MABN92MI	Anti-Iba1/AIF1
MAB353MI	Anti-Nestin, clone rat-401
MAB5326MI	Anti-Nestin, clone 10C2
AB5905MI	Anti-Vesicular Glutamate Transporter 1
MAB5502MI	Anti-Vesicular Glutamate Transporter 1
05-419-MI	Anti-Myc Tag, clone 9E10
MAB3026MI	Anti-NFkB, p65 subunit, active subunit, clone 12H11
AB1504MI	Anti-Glutamate receptor 1
MAB2263MI	Anti-GluR1-NT (NT), clone RH95
05-643-MI	Anti-phospho-GSK3β (Ser9), clone 2D3
06600MI	Anti-NR2B
AB1557PMI	Anti-NMDAR2B
AB9610MI	Anti-Olig-2
MABN50MI	Anti-Olig2, clone 211F1.1

Glial Fibrillary Acidic Protein (GFAP)

Glial fibrillary acidic protein is a class-III intermediate filament. GFAP is the main constituent of intermediate filaments in astrocytes and serves as a cell-specific marker that distinguishes differentiated astrocytes from other glial cells during the development of the central nervous system.

Photo (right): Rabbit anti-MAP2 **(Cat. No. AB5622)**. Immunolocalization of MAP2 (green) and GFAP (red) in rat hippocampus. The slide was mounted with Vectashield DAPI. Photo courtesy of Karl A. Kasischke & Patricia J. Fisher, Cornell University, Ithaca, NY.

Fisher Scientific Cat. No.	Description
MAB360MI	Anti-Glial Fibrillary Acidic Protein, clone GA5



Fisher Scientific Cat. No.	Description
AB1506MI	Anti-Glutamate Receptor 2 & 3
MAB397MI	Anti-Glutamate Receptor 2, extracellular, clone 6C4
AB5320MI	Anti-NG2 Chondroitin Sulfate Proteoglycan
MAB5384-I-100	Anti-NG2 Chondroitin Sulfate Proteoglycan
MABS196MI	Anti-mTOR, rabbit monoclonal
05-159-2MI	Anti-mTOR, clone 21D8.2
AB1779SPMI	Anti-Brain Derived Neurotrophic Factor
MAB1572MI	Anti-Parvalbumin
06-570-MI	Anti-phospho-Histone H3 (Ser10), Mitosis Marker
06-599-MI	Anti-acetyl-Histone H3
07-449-MI	Anti-trimethyl-Histone H3 (Lys27)
AB9864MI	Anti-NMDAR1, rabbit monoclonal
MAB363MI	Anti-NMDAR1, clone 54.1
MABC32MI	Anti-p62 (Sequestosome-1), clone 11C9.2
MAB1398ZMI	Anti-PECAM-1, clone 2H8, Azide Free
MAB5406MI	Anti-GAD67, clone 1G10.2
05-904-MI	Anti-HA tag
AB1722MI	Anti-Bcl-2, a.a. 68-86 of mBCL2
AB175MI	Anti-GABA
MABN1193MI	Anti-Synaptophysin, clone 10F6.1
ABE457MI	Anti-c-Fos
AB5603MI	Anti-SOX2
06-519-MI	Anti-phospho-CREB (Ser133)
06-863-MI	Anti-CREB
MABN92MI	Anti-Iba1/AIF1
MAB353MI	Anti-Nestin, clone rat-401
MAB5326MI	Anti-Nestin, clone 10C2
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MAB3026MI	Anti-NFkB, p65 subunit, active subunit, clone 12H11
AB1504MI	Anti-Glutamate receptor 1
MAB2263MI	Anti-GluR1-NT (NT), clone RH95
05-643-MI	Anti-phospho-GSK3β (Ser9), clone 2D3
06600MI	Anti-NR2B
AB1557PMI	Anti-NMDAR2B
AB9610MI	Anti-Olig-2
MABN50MI	Anti-Olig2, clone 211F1.1



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Fisher Lit No. BN20200622 31496 05/2020

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