L-Glutamate Antibody – Mouse Monoclonal

Ref: IS018

Anti-L-Glutamate antibody IS018 is a mouse monoclonal Ab specifically selected by competitive ELISA for its affinity and specificity features. Using with the STAINperfect immunostaining kit A, our antibody directly labels L-Glutamate in whole mounts, cell culture and tissue sections.

Clonality	Monoclonal antibody
Host	Mouse
Applications	IHC / IF
Reactivity	Reacts with all species
Tested samples	whole mounts, cell culture, tissue sections
Staining procedure	STAINperfect immunostaining kit A
Format	50 µL
References	Cited 1 paper

INFORMATIONS

Product overview

Product name	L-Glutamate antibody – mouse mAb
Synonyms	Anti-L-Glutamic acid antibody
Immunogen	Conjugated L-Glutamate
Specificity	When tested in competitive ELISA, the anti-conjugated Glutamate antibody did not show any significant cross reactivity with its analogs, including D-Glutamate
Clone	1D51B1
Volume	50 µL

Storage

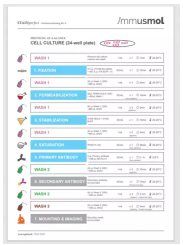
Form	Liquid
Purity	Purified IgG
Storage	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
Material safety datasheet	Download MSDS

PROTOCOLS

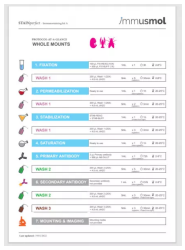
IF – Cell cultures, Whole mounts, Tissue sections	Dilute antibody with the antibody diluent provided in the STAINperfect immunostaining kit A. Use at 1/250 -1/1000 dilution. Follow the STAINperfect protocol suited to your sample
Comments	Optimal working dilutions must be determined by the end-user
Restrictions	For research use only
Full protocol	Download STAINperfect protocol for L-Glutamate staining

Protocols-at-a-glance

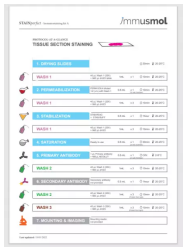
Complete Instructions for Use



Protocol-at-a-glance for cell cultures



Protocol-at-a-glance for whole mounts

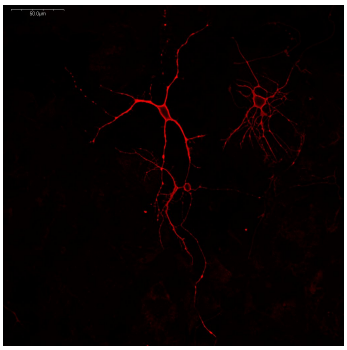


Protocol-at-a-glance for tissue sections

REFERENCES

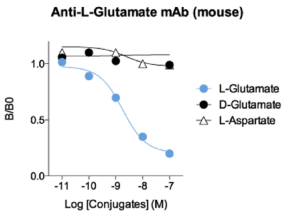
Product citations

Product pictures



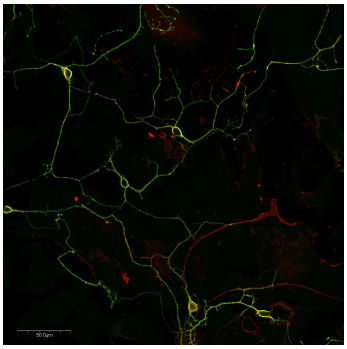
Staining of glutamatergic neurons in mouse primary cortical culture

Our optimized mouse monoclonal anti-L-Glutamate antibody allows the detection of L-Glutamate within primary neurons in cell culture. Staining was performed using STAINperfect immunostaining kit A, according to the protocol optimized for cell culture. After addition of a fluorescent labeled



Affinity & specificity of anti-L-Glutamate monoclonal antibody 1D5-1B1

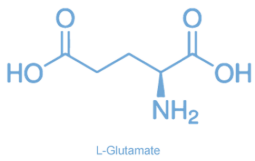
Competitive ELISA demonstrates that low amounts of L-Glu conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of D-Glutamate and L-Aspartate conjugates do not affect reaction (high specificity).



L-Glutamate and GABA in adult mouse primary cortical neurons

Adult mouse primary cortical neurons were stained with mouse monoclonal anti-L-glutamate antibody (red) combined with anti-GABA rabbit polyclonal antibody (green). Staining was performed using optimized sample preparation with STAINperfect immunostaining kit A and according to the protocol for cell culture. Fluorescent labeled secondary antibody were used and pictures were acquired by confocal imaging.

L-Glutamic acid (L-Glutamate)



L-Glutamate

Amino acid L-Glutamic acid (L-Glutamate) is the major excitatory neurotransmitter in the vertebrate nervous system. Agonist of NMDA, AMPA, Kainate and metabotropic receptors, L-Glutamic acid regulates synaptic plasticity, and is thus involved in learning and mnemonic processes. However, by activating NMDA receptors, L-Glutamic acid may also lead to neuronal damage and death. Glutamate toxicity is thus associated with the pathogenesis of neurodevelopmental and neurodegenerative disorders.

Contact information

Immusmol
229 Cours de l'Argonne
33 000 Bordeaux - France
Tel: +33 (0) 5 6431 1170
www.immusmol.com

To order, review, ask for technical support, visit product page at:

https://www.immusmol.com/shop/l-glutamate-mouse-mab/