

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
Lot number	140313
Expiration date	2025-03-01

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

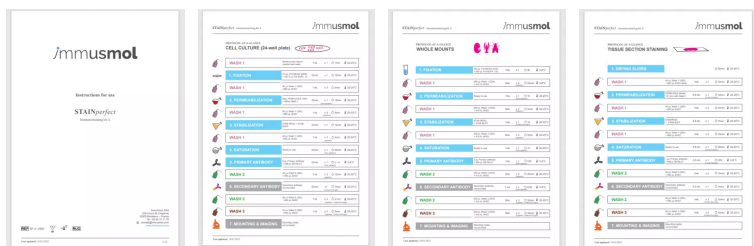
IF - Cell cultures, Whole mounts, Tissue sections Dilute antibody with the antibody diluent provided in the [STAINperfect immunostaining kit A](#). Use at 1/250 -1/1000 dilution. Follow the STAINperfect protocol suited to your sample

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](#)

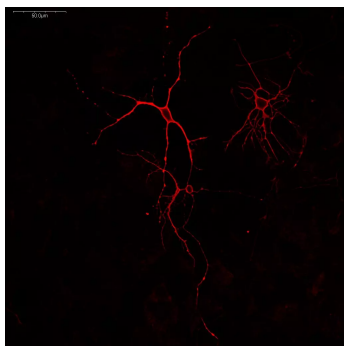
[Protocol-at-a-glance for whole mounts](#)

[Protocol-at-a-glance for tissue sections](#)

REFERENCES

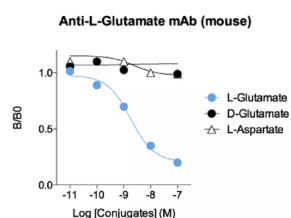
Product citations

Product pictures



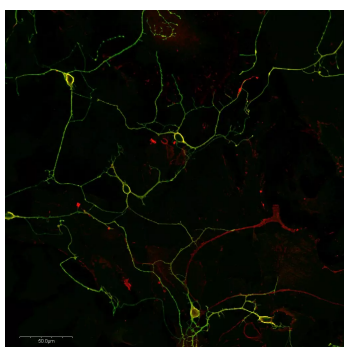
Staining of glutamatergic neurons in mouse primary cortical culture

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

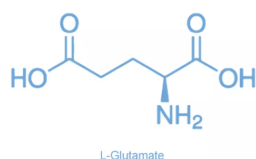
Competitive ELISA demonstrates that low amounts of L-Glu conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of D-Glutamate and L-Aspartate conjugates do not affect reaction (high specificity).



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)



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

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

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