

GABA mouse mAb – IS039

Ref: IS039-sp

Anti-GABA antibody (#IS039) is a mouse monoclonal antibody specifically selected by competitive ELISA for its affinity and specificity features. Used with the [STAINperfect immunostaining kit A](#) through appropriate protocols, our antibody directly labels GABA and allows to evidence, in the same way as with our validated reference rabbit polyclonal anti-GABA antibody (#IS1006), GABAergic systems – cell bodies and neuritic network, in whole mounts, cell culture and tissue sections.

Clonality	Monoclonal antibody (clone 7F52B41B4)
Host	Mouse
Reactivity	Reacts with all species
Applications	IHC / IF
Tested samples	Whole mounts, cell culture, tissue sections
Staining procedure	STAINperfect immunostaining kit A
Format	50µL

INFORMATIONS

Product name GABA antibody - mouse mAb

Synonyms Anti-g-Aminobutyric acid antibody
Anti-gamma-Aminobutyric acid antibody

Immunogen Conjugated GABA

Specificity When tested in competitive ELISA, the anti-conjugated GABA antibody did not show any significant cross reactivity with gamma-Aminobutyric acid analogs, including beta-Alanine and L.Glutamate

Volume 50µL

Storage

Form Liquid

Purity Purified IgG1 (lambda)

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

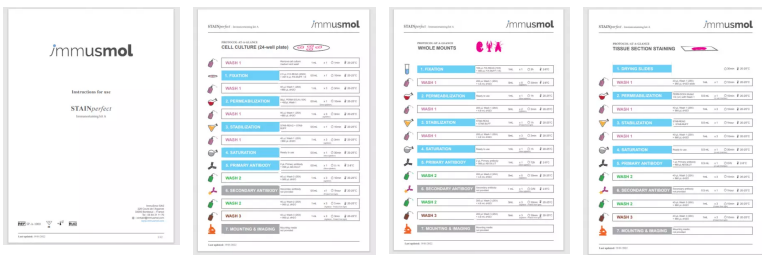
Dilute antibody with the antibody diluent provided in the [STAINperfect immunostaining kit A](#). Use at 1/250 -1/1000 dilution. Follow the STAINperfect protocol suited to your sample

Comments Optimal working dilutions must be determined by the end-user

Restrictions For research use only

Full protocol [Download STAINperfect protocol for GABA 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](#)

Enregistrer

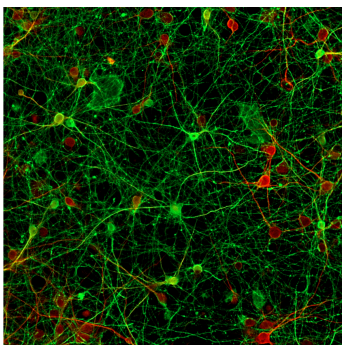
REFERENCES

Antibody not yet cited. Submit an article and [get a 10% discount](#).

Selected articles on GABA:

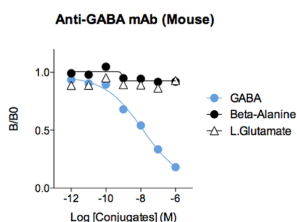
- [Liu X, Wang Q, Haydar TF, Bordey A. Nonsynaptic GABA signaling in postnatal subventricular zone controls proliferation of GFAP-expressing progenitors. Nat Neurosci. 2005 Sep;8\(9\):1179-87. Epub 2005 Aug 14.](#)
- [Lawrence JJ. Cholinergic control of GABA release: emerging parallels between neocortex and hippocampus. Trends Neurosci. 2008 Jul;31\(7\):317-27. doi: 10.1016/j.tins.2008.03.008. Epub 2008 Jun 13.](#)
- [Baulac S, Huberfeld G, Gourfinkel-An I, Mitropoulou G, Beranger A, Prud'homme JF, Baulac M, Brice A, Bruzzone R, LeGuern E. First genetic evidence of GABA\(A\) receptor dysfunction in epilepsy: a mutation in the gamma2-subunit gene. Nat Genet. 2001 May;28\(1\):46-8.](#)

Product pictures



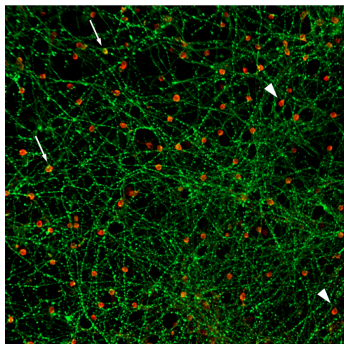
Total and GABAergic neuronal networks in mature rat cortical cultures

Image field micrographs of mature (12 DIV-old) rat cortical cultures, illustrating total and GABAergic neuronal networks revealed by MAP2 (in red) and GABA (in green) immunostaining, respectively. GABA immunostaining obtained using whether our monoclonal (#IS039) or polyclonal GABA antibody (#IS1006) with the STAINperfect immunostaining



Affinity & specificity of anti-GABA antibody

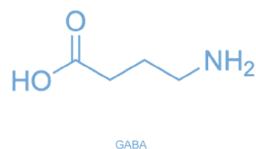
Competitive ELISA demonstrates that low amounts of GABA conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of beta-Alanine and L-Glutamate conjugates do not affect reaction (high specificity).



GABAergic network and glutamatergic cell populations in a mature rat cortical culture

GABAergic network and glutamatergic cell populations in a mature rat cortical culture revealed by GABA (mouse monoclonal antibody #IS039) and L-glutamate (rabbit polyclonal antibody #IS1001) immunoreactivity. As expected, our antibodies, appropriately used with the STAINperfect immunostaining kit A, highlight the rich cortical GABAergic system (cell bodies and branches - displaying a punctiform staining) as well as the glutamate-positive cell population. While GABA neurons are also glutamate-positive (some are pointed by the arrows), arrowheads point glutamate-positive GABA-negative cells, which can be either astrocytes or glutamatergic neurons.

Gamma-aminobutyric acid (GABA)



In the mammalian brain, inhibitory neurotransmitter Gamma-aminobutyric acid (GABA) is mainly synthesized from excitatory L-Glutamate by enzyme glutamic acid decarboxylase (GAD). Regulating neuronal excitability, GABAergic synapses are present throughout the CNS, although GABA is found most highly concentrated in the substantia nigra, the globus pallidus nuclei, the hypothalamus, the periaqueductal grey matter and the hippocampus.

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

<https://www.immusmol.com/shop/gaba-monoclonal-antibody-bundle/>