

# GABA Antibody – Mouse Monoclonal

Ref: IS039

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 polyclonal anti-GABA antibodies ( [Rabbit pAb #IS1006](#), [Chicken pAb#IS1036](#)), GABAergic systems – cell bodies and neuritic network, in whole mounts, cell culture and tissue sections.

<b>Clonality</b>	Monoclonal antibody (clone 7F52B41B4)
<b>Host</b>	Mouse
<b>Reactivity</b>	Reacts with all species
<b>Applications</b>	<a href="#">IHC / IF</a>
<b>Tested samples</b>	Whole mounts, cell culture, tissue sections
<b>Staining procedure</b>	<a href="#">STAINperfect immunostaining kit A</a>
<b>Format</b>	50µL
<b>References</b>	<a href="#">Cited in 1 paper</a>

## INFORMATIONS

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<b>Product name</b>	GABA antibody – mouse mAb
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<b>Synonyms</b>	Anti-g-Aminobutyric acid antibody Anti-gamma-Aminobutyric acid antibody
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<b>Immunogen</b>	Conjugated GABA
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<b>Specificity</b>	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
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<b>Volume</b>	50µL
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## Storage

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<b>Form</b>	Liquid
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<b>Purity</b>	Purified IgG1 (lambda)
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<b>Storage</b>	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
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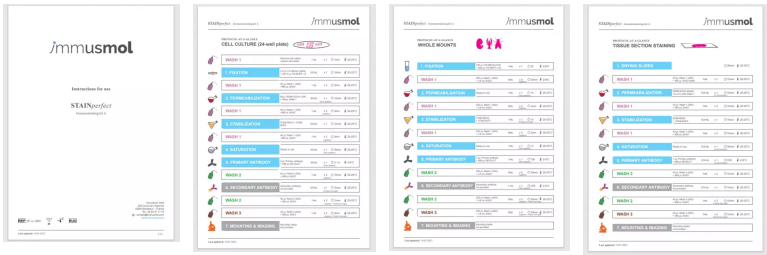
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<b>Material safety datasheet</b>	<a href="#">Download MSDS</a>
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# PROTOCOLS

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

## Protocols-at-a-glance

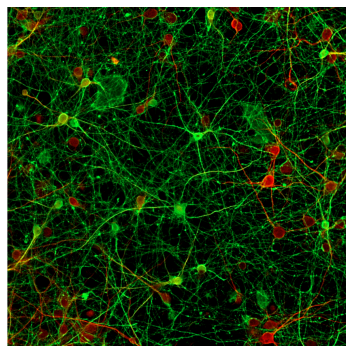


- [Complete Instructions for Use](#)
- [Protocol-at-a-glance for cell cultures](#)
- [Protocol-at-a-glance for whole mounts](#)
- [Protocol-at-a-glance for tissue sections](#)

# REFERENCES

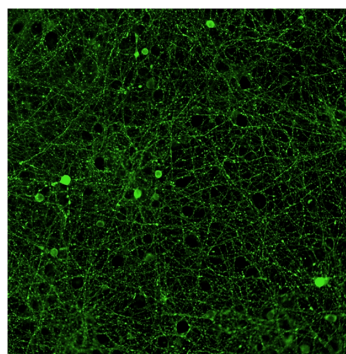
## Product citations

## Product pictures

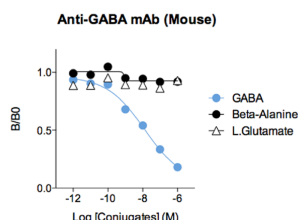


### Total and GABAergic neuronal networks in mature rat cortical cultures

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

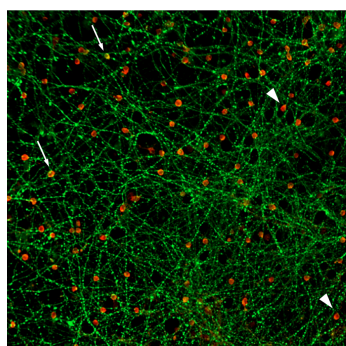


### GABAergic neuronal network



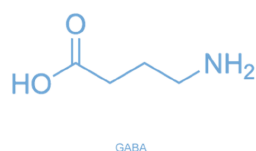
### Affinity & specificity of anti-GABA antibody

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).

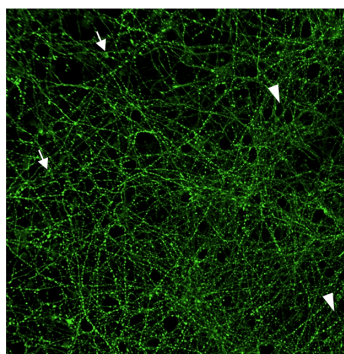


### GABAergic network and glutamatergic cell populations in a mature rat cortical culture

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.

**GABAergic network**

## Contact information

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

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