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# Product Information

**Anti-GABA antibody, Mouse monoclonal**
clone GB-69, purified from hybridoma cell culture

Product Number **SAB4200721**

## Product Description

Anti-GABA antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the GB-69 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified GABA conjugated to BSA. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-GABA antibody recognizes human,[1] monkey,[1-2] mouse,[3] rat,[4] Mongolian gerbil[5] and bullfrog[6] GABA. Monoclonal Anti-GABA shows no reactivity with BSA, L-α-aminobutyric acid, L-glutamic acid, L-aspartic acid, glycine, δ-aminovaleric acid, L-threonine, L-glutamine, taurine, putrescine, L-alanine, and carnosine. Weak cross-reaction is observed with β-alanine and ε-aminocaproic acid. Monoclonal Anti-GABA may be used in various immunochemical assays, including Immunofluorescence, Immunohistochemistry,[1-6] ELISA and Dot-Blot.

GABA, also known as γ-Aminobutyric acid, is the main inhibitory neurotransmitter in the central nervous system (CNS) of vertebrates.[7] GABA is formed following enzymatic decarboxylation of L-glutamic acid by glutamic acid decarboxylase (GAD). GABA mediates fast synaptic inhibition in the mature nervous system and plays multiple key roles as sensory circuits undergo functional development.[8-9] The GABA receptors are classified into $GABA_A$ and $GABA_B$ types. $GABA_A$ receptors present in certain inflammatory cells, such as $CD^{4+}$ T cells and macrophages and act as proliferation inhibitors. $GABA_B$ receptors exist on neutrophils and allow the GABA to function as a chemoattractant.[10] It is suggested that GABA is also responsible for the proliferation of several cell types including embryonic stem cells, cortical progenitor cells and immune cells. In addition it is involved in protein synthesis and metabolism and plays a major role in the regulation of muscle tone, blood pressure, heart rate and respiration.[11-13]

Monoclonal Anti-GABA antibody provides a useful tool for direct visualization and localization of GABA in cell cultures and tissues.

## Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

## Product Profile

Immunofluorescence: a working concentration of 5–10 μg/ml is recommended using human pancreatic tumor AsPC1 cell line.

Immunohistochemistry: a working concentration of 1–2.5 μg/ml is recommended using heat-retrieved formalin-fixed, paraffin-embedded human brain and/or cerebellum sections.

**Note**: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

## References

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