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Product Information

Anti-$GABA_B$ Receptor 1
produced in rabbit, affinity isolated antibody

Catalog Number **G1295**

Product Description

Anti-$GABA_B$ Receptor 1 is produced in rabbit using as immunogen a synthetic peptide corresponding to the N-terminal extracellular domain of human $GABA_B$ Receptor 1 conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-$GABA_B$ Receptor 1 specifically recognizes the human $GABA_B$ Receptor 1 by immunohistochemistry with formalin fixed paraffin embedded tissues of cerebellum. Not tested for other uses. The immunizing peptide has 100% homology with the rat and mouse genes. Other species reactivity has not been confirmed.

The inhibitory neurotransmitter GABA (γ-aminobutyric acid) interacts with three types of receptors: ionotropic $GABA_A$ ($GABA_AR$), $GABA_C$ ($GABA_CR$) and a metabotropic $GABA_B$ receptor. The $GABA_B$ receptors are heterodimeric G protein-coupled receptors that mediate slow synaptic inhibition in the central nervous system via regulation of the release of neurotransmitters and activation of ion channels and adenylyl cyclase.[1] Native $GABA_B$ receptors function as heteromeric proteins, the most abundant form being the $GABA_B$ R1/$GABA_B$ R2 coupled receptor targeted to plasma membrane. The interaction of these receptors appears to be crucial for important physiologic effects of 1GABA and provides a mechanism in receptor signaling pathways that involve a heterotrimeric GTP-binding protein.[2]

GABA(B) receptor 1 is widely expressed, with highest levels reported in brain, and lower levels in the gastrointestinal tract, kidney, and uterus. ESTs have been isolated from a wide variety of tissues, including adrenal, brain, breast, colon, embryo, eye, ganglion, head/neck, heart, heart/melanocyte/uterus, liver/spleen, lung, nerve, placenta, prostate, stomach, testis, and tonsil libraries, among others.

Reagent

Supplied as a solution of 1mg/ml in phosphate buffered saline, pH 7.7, containing 0.01% sodium azide as preservative.

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

Store at –20 °C. Upon initial thawing, freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Do not store in frost-free freezers. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

Immunohistochemistry: a recommended working concentration of 9-18 µg/ml was determined using human cerebellum tissues.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Bettler B., et al., Molecular structure and physiological functions of GABA(B) receptors., *Physiol Rev.,* **84**, 835-867 (2004).
2. Kuner, R., et al., Role of heteromer formation GABA-B receptor function., *Science*, **283**, 74-77 (1999).

This product manufactured by MBL International.

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