

#### DESCRIPTION

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat GABA <sub>B</sub> R1 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 751216
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant rat GABA <sub>B</sub> R1 Gly17-Leu586 Accession # Q9Z0U4
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

GABA<sub>B</sub> R1 (GABA-B receptor subunit 1; also GABA-BR1, GABBR1 and GB1) is a multispan glycoprotein in the GABA-B receptor subfamily, GPCR-3 family of proteins. It forms an obligatory heterodimer with GABA-BR2, creating a G-protein metabotropic GABA receptor that inhibits adenylyl cyclase activity and activates K<sup>+</sup> channels. Presynaptically, this blocks neurotransmitter release; postsynaptically, it lowers neuron excitability. Rat GABA<sub>B</sub> R1 is 991 amino acids (aa) in length. It contains a 16 aa signal sequence, an extended N-terminal extracellular region (aa 17-590) that contains two SUSHI domains (aa 29-158), and a long C-terminal cytoplasmic domain (aa 885-991). There are several splice variants with predicted molecular weights ranging from 90 to 111 kDa and multiple glycosylation sites. The 991 aa isoform described above is called GABA<sub>B</sub> R1e (R1e). There is also a 960 aa, 130 kDa isoform that shows a deletion of aa 771-801. This variant (R1a) is associated with postsynaptic membranes. A third isoform (R1b) is 844 aa in length and 100 kDa in size and possesses both a deletion of aa 771-801 and a 47 aa substitution for aa 1-163. This variant is presynaptic in location. Two other isoforms are variants of GABA<sub>B</sub> R1b. Each show the same N-terminal substitution, with a fourth isoform (R1c) retaining aa 771-801 and a fifth isoform (R1d) deleting aa 771-801, coupled to a 25 aa substitution for aa 935-991. Over aa 17-586, rat GABA<sub>B</sub> R1e/a shares 99% aa identity with both mouse and human GABA<sub>B</sub> R1.

#### PRODUCT SPECIFIC NOTICES

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