

Product datasheet

Recombinant Human GABA B Receptor 1 protein  
ab112287

1 Image

Overview

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<b>Product name</b>	Recombinant Human GABA B Receptor 1 protein
<b>Protein length</b>	Protein fragment

Description

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<b>Nature</b>	Recombinant
<b>Source</b>	Wheat germ

Amino Acid Sequence

<b>Accession</b>	<a href="#">Q9UBS5-2</a>
<b>Species</b>	Human
<b>Sequence</b>	AVYIGALFPMSSGGWPGGQACQPAVEMALEDVNSRRDILPDYELKLIHDS KCDPGQATKYLYELLYNDPIKILMPGCSSVSTLVAEAARMWNLMLSYG
<b>Molecular weight</b>	37 kDa
<b>Amino acids</b>	52 to 151
<b>Tags</b>	GST tag N-Terminus

Specifications

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Our [Abpromise guarantee](#) covers the use of **ab112287** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE Western blot ELISA
<b>Form</b>	Liquid

Preparation and Storage

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<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00
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Constituents: 0.79% Tris HCl, 0.31% Glutathione

Note: Glutathione is reduced

## General Info

### Function

Receptor for GABA. The activity of this receptor is mediated by G-proteins that inhibit adenylyl cyclase activity, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipids hydrolysis. Plays a critical role in the fine-tuning of inhibitory synaptic transmission. Pre-synaptic GABA-B-R inhibit neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA-B-R decrease neuronal excitability by activating a prominent inwardly rectifying potassium (Kir) conductance that underlies the late inhibitory postsynaptic potentials. Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception. Activated by (-)-baclofen, cgp27492 and blocked by phaclofen.

Isoform 1E function may be to regulate the availability of functional GABA-B-R1A/GABA-B-R2 heterodimers by competing for GABA-B-R2 dimerization. This could explain the observation that certain small molecule ligands exhibit differential affinity for central versus peripheral sites.

### Tissue specificity

Highly expressed in brain and weakly in heart, small intestine and uterus. Isoform 1A is mostly expressed in granular cell and molecular layer. Isoform 1B is mostly expressed in Purkinje cells. Isoform 1E is predominantly expressed in peripheral tissues as kidney, lung, trachea, colon, small intestine, stomach, bone marrow, thymus and mammary gland.

### Sequence similarities

Belongs to the G-protein coupled receptor 3 family. GABA-B receptor subfamily. Contains 2 Sushi (CCP/SCR) domains.

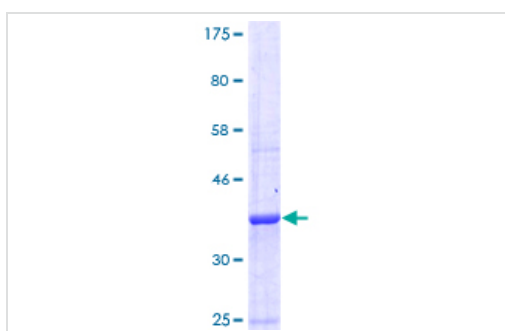
### Domain

Alpha-helical parts of the C-terminal intracellular region mediate heterodimeric interaction with GABA-B receptor 2. The linker region between the transmembrane domain 3 (TM3) and the transmembrane domain 4 (TM4) probably play a role in the specificity for G-protein coupling.

### Cellular localization

Secreted and Cell membrane. Cell junction > synapse > postsynaptic cell membrane. Colocalizes with ATF4 in hippocampal neuron dendritic membranes (By similarity). Moreover coexpression of GABA-B-R1 and GABA-B-R2 appears to be a prerequisite for maturation and transport of GABA-B-R1 to the plasma membrane.

## Images



ab112287 analysed on a 12.5% SDS-PAGE stained with Coomassie Blue.

SDS-PAGE - Recombinant Human GABA B Receptor 1 protein (ab112287)

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