GABBR1 Ab

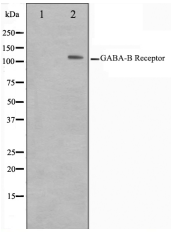
Cat.#: AF0162	Concn.: 1mg/ml	Mol.Wt.: 110kDa
Size: 100ul,200ul	Source: Rabbit	Clonality: Polyclonal

Application:	WB: 1:500~1:3000 IHC: 1:50~1:200, IF/ICC 1:100-1:500
Reactivity:	Human,Mouse,Rat
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).
Specificity:	GABBR1 Ab detects endogenous levels of total GABBR1.
Immunogen:	A synthesized peptide derived from human GABBR1.
Uniprot:	Q9UBS5
Description:	GABBR1 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. Heterodimer of GABA-B-R1 and GABA-B-R2. Neither of which is effective on its own and homodimeric assembly does not seem to happen. Isoform 1E (without C-terminal intracellular domain) is unable to dimerize via a coiled-coil interaction with GABA-B-R2. Interacts with the leucine zipper of the C-terminal bZIP domain of ATF4 via its C-terminal region. Interacts with JAKMIP1.
Subcellular Location:	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.
Tissue Specificity:	Highly expressed in brain (PubMed:9844003,

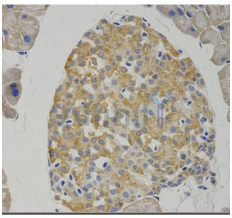
PubMed:9753614, PubMed:9872744). Weakly expressed in heart, small intestine and uterus. Isoform 1A: Mainly expressed in granular cell and molecular layer (PubMed:9844003). Isoform 1B: Mainly expressed in Purkinje cells (PubMed:9844003). Isoform 1E: Predominantly expressed in peripheral tissues as kidney, lung, trachea, colon, small intestine, stomach, bone marrow, thymus and mammary gland (PubMed:10906333).

Similarity: Alpha-helical parts of the C-terminal intracellular region mediate heterodimeric interaction with GABBR2 (PubMed:9872744). The linker region between the transmembrane domain 3 (TM3) and the transmembrane domain 4 (TM4) probably plays a role in the specificity for G-protein coupling (PubMed:9844003).Belongs to the G-protein coupled receptor 3 family. GABA-B receptor subfamily.

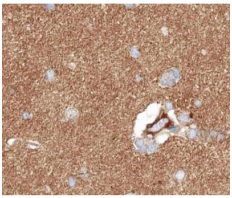
Storage Condition and Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt.



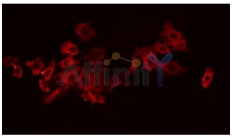
Western blot analysis on HeLa cell lysate using GABBR1 Ab,The lane on the left is treated with the antigen-specific peptide.



ihc test on mouse pancreas tissue.



AF0162 at 1/100 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the Ab for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit Ab was used as the secondary.



AF0162 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary Ab was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary Ab.

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.