

GABAB R1 Rabbit pAb

CatalogNo: YT1829

Orthogonal Validated 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat, Guinea Pig

Applications

- WB, IF, ELISA

MW

- 108kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-1:2000**IF 1:200-1:1000****ELISA 1:5000****Not yet tested in other applications.**

Storage

Storage*

-15°C to -25°C/1 year(Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

The antiserum was produced against synthesized peptide derived from human GABBR1. AA range:891-940

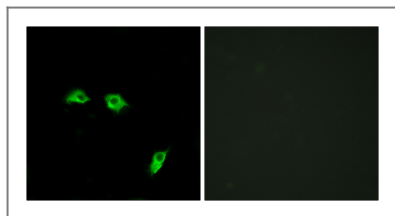
Specificity

GABAB R1 Polyclonal Antibody detects endogenous levels of GABAB R1 protein.

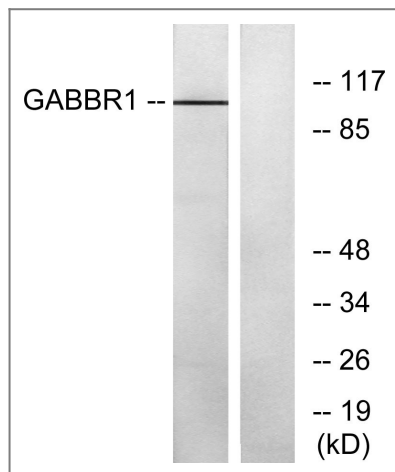
Target Information

Gene name	GABBR1		
Protein Name	Gamma-aminobutyric acid type B receptor subunit 1		
	Organism	Gene ID	UniProt ID
	Human	2550 ;	Q9UBS5 ;
	Mouse	54393 ;	Q9WV18 ;
	Rat	81657 ;	Q9Z0U4 ;
Cellular Localization	Cell membrane ; Multi-pass membrane protein . Cell junction, synapse, postsynaptic cell membrane ; Multi-pass membrane protein . Cell projection, dendrite . Colocalizes with ATF4 in hippocampal neuron dendritic membranes (By similarity). Coexpression of GABBR1 and GABBR2 is required for GABBR1 maturation and transport to the plasma membrane (PubMed:15617512). .; [Isoform 1E]: Secreted .		
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).		
Function	Alternative products:Isoforms corresponding to the full receptor are essentially found in the central nervous system (CNS),cofactor:Calcium. Required for high affinity binding to GABA.,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.,Function: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.,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.,similarity:Belongs to the G-protein coupled receptor 3 family. GABA-B receptor subfamily.,similarity:Contains 2 Sushi (CCP/SCR) domains.,subcellular location: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.,subunit: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.,tissue specificity:Highly expressed in brain and weakly in heart, small intestine and uterus. Mostly expressed in granular cell and molecular layer for isoform 1A and in Purkinje cells form isoform 1B. Isoform 1E is predominantly expressed in peripheral tissues as kidney, lung, trachea, colon, small intestine, stomach, bone marrow, thymus and mammary gland.,		

Validation Data



Immunofluorescence analysis of HeLa cells, using GABBR1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from K562 cells, using GABBR1 Antibody. The lane on the right is blocked with the synthesized peptide.

Contact information

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GABAB R1 Rabbit pAb

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