

GABBR1 Antibody (N-Term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21792a**Specification**

GABBR1 Antibody (N-Term) - Product Information

Application	WB,E
Primary Accession	Q9UBS5
Other Accession	Q9WV18 , Q9Z0U4
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG

GABBR1 Antibody (N-Term) - Additional Information**Gene ID** 2550**Other Names**

Gamma-aminobutyric acid type B receptor subunit 1, GABA-B receptor 1, GABA-B-R1, GABA-BR1, GABABR1, Gb1, GABBR1, GPRC3A

Target/Specificity

This GABBR1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 18-52 amino acids from human GABBR1.

Dilution

WB~~1:2000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

GABBR1 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

GABBR1 Antibody (N-Term) - Protein Information**Name** GABBR1**Synonyms** GPRC3A

Function Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2 (PubMed:[9872316](#), PubMed:[9872744](#), PubMed:[15617512](#), PubMed:[18165688](#), PubMed:[22660477](#), PubMed:[24305054](#)). Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins (PubMed:[18165688](#)). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors, such as adenylate cyclase (PubMed:[10906333](#), PubMed:[10773016](#), PubMed:[10075644](#), PubMed:[9872744](#), PubMed:[24305054](#)). Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis (PubMed:[10075644](#)). Calcium is required for high affinity binding to GABA (By similarity). Plays a critical role in the fine-tuning of inhibitory synaptic transmission (PubMed:[9844003](#)). Pre-synaptic GABA receptor inhibits neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA receptor decreases neuronal excitability by activating a prominent inwardly rectifying potassium (Kir) conductance that underlies the late inhibitory postsynaptic potentials (PubMed:[9844003](#), PubMed:[9872316](#), PubMed:[10075644](#), PubMed:[9872744](#), PubMed:[22660477](#)). Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception (Probable). Activated by (-)-baclofen, cgp27492 and blocked by phaclofen (PubMed:[9844003](#), PubMed:[9872316](#), PubMed:[24305054](#)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q9Z0U4}; Multi-pass membrane protein. Cell projection, dendrite {ECO:0000250|UniProtKB:Q9Z0U4}. Note=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](#)). {ECO:0000250|UniProtKB:Q9Z0U4, ECO:0000269|PubMed:[15617512](#)}

Tissue Location

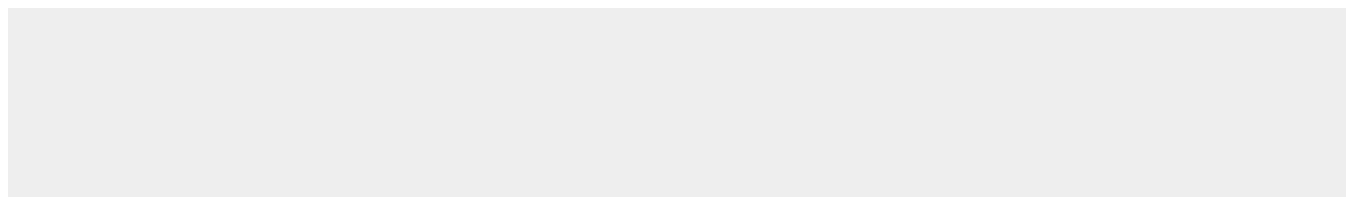
Highly expressed in brain (PubMed:[9844003](#), PubMed:[9753614](#), PubMed:[9872744](#)). Weakly expressed in heart, small intestine and uterus. Isoform 1A: Mainly expressed in granular cell and molecular layer (PubMed:[9844003](#)). Isoform 1B: Mainly expressed in Purkinje cells (PubMed:[9844003](#)).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

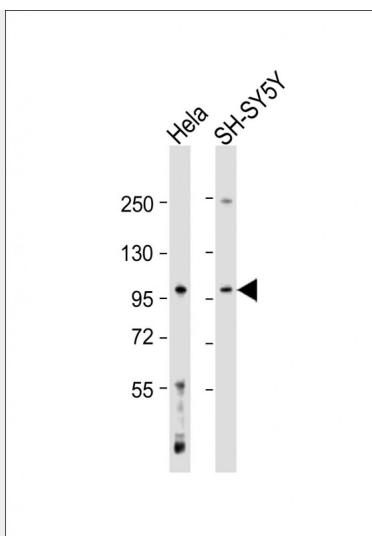
GABBR1 Antibody (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GABBR1 Antibody (N-Term) - Images





All lanes : Anti-GABBR1 Antibody (N-Term) at 1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 108 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

GABBR1 Antibody (N-Term) - Background

Component of a heterodimeric G-protein coupled receptor for GABA, formed by GABBR1 and GABBR2. Within the heterodimeric GABA receptor, only GABBR1 seems to bind agonists, while GABBR2 mediates coupling to G proteins. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors, such as adenylate cyclase. Signaling inhibits adenylate cyclase, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipid hydrolysis. Calcium is required for high affinity binding to GABA. Plays a critical role in the fine-tuning of inhibitory synaptic transmission. Pre-synaptic GABA receptor inhibits neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA receptor decreases 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.

GABBR1 Antibody (N-Term) - References

Kaupmann K.,et al.Proc. Natl. Acad. Sci. U.S.A. 95:14991-14996(1998).
White J.H.,et al.Nature 396:679-682(1998).
Stropp U.,et al.Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases.
Grifa A.,et al.Biochem. Biophys. Res. Commun. 250:240-245(1998).
Goei V.L.,et al.Biol. Psychiatry 44:659-666(1998).