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GABRA1 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21477b

Specification

GABRA1 Blocking Peptide (C-term) - Product Information

Primary Accession	P14867

GABRA1 Blocking Peptide (C-term) - Additional Information

Gene ID 2554

Other Names
Gamma-aminobutyric acid receptor subunit alpha-1, GABA(A) receptor subunit alpha-1, GABRA1

Target/Specificity
The synthetic peptide sequence is selected from aa 405-418 of HUMAN GABRA1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GABRA1 Blocking Peptide (C-term) - Protein Information

Name GABRA1

Function
Ligand-gated chloride channel which is a component of the heteropentameric receptor for GABA, the major inhibitory neurotransmitter in the brain (PubMed:23909897, PubMed:25489750, PubMed:29950725). Plays an important role in the formation of functional inhibitory GABAergic synapses in addition to mediating synaptic inhibition as a GABA-gated ion channel (PubMed:23909897, PubMed:25489750). The gamma2 subunit is necessary but not sufficient for a rapid formation of active synaptic contacts and the synaptogenic effect of this subunit is influenced by the type of alpha and beta subunits present in the receptor pentamer (By similarity). The alpha1/beta2/gamma2 receptor and the alpha1/beta3/gamma2 receptor exhibit synaptogenic activity (PubMed:23909897, PubMed:25489750).

GABRA1-mediated plasticity in the orbitofrontal cortex regulates context-dependent action selection (By similarity). Functions also as histamine receptor and mediates cellular responses to histamine (By similarity).

Cellular Location
Postsynaptic cell membrane {ECO:0000250|UniProtKB:P08219}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P62813}

GABRA1 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides

GABRA1 Blocking Peptide (C-term) - Images

GABRA1 Blocking Peptide (C-term) - Background

Component of the heteropentameric receptor for GABA, the major inhibitory neurotransmitter in the vertebrate brain. Functions also as histamine receptor and mediates cellular responses to histamine. Functions as receptor for diazepines and various anesthetics, such as pentobarbital; these are bound at a separate allosteric effector binding site. Functions as ligand- gated chloride channel (By similarity).

GABRA1 Blocking Peptide (C-term) - References

Schofield P.R.,et al.FEBS Lett. 244:361-364(1989).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Garrett K.M.,et al.Biochem. Biophys. Res. Commun. 156:1039-1045(1988).
Lachance-Touchette P.,et al.Eur. J. Neurosci. 34:237-249(2011).
Carvill G.L.,et al.Neurology 82:1245-1253(2014).