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GRIN2A Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP11331c

Specification

GRIN2A Antibody (Center) Blocking peptide - Product Information

Primary Accession Q12879

GRIN2A Antibody (Center) Blocking peptide - Additional Information

Gene ID 2903

Other Names
Glutamate receptor ionotropic, NMDA 2A, GluN2A, Glutamate [NMDA] receptor subunit epsilon-1, N-methyl D-aspartate receptor subtype 2A, NMDAR2A, NR2A, hNR2A, GRIN2A, NMDAR2A

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.

GRIN2A Antibody (Center) Blocking peptide - Protein Information

Name GRIN2A

Synonyms NMDAR2A

Function
Component of NMDA receptor complexes that function as heterotetrameric, ligand-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Channel activation requires binding of the neurotransmitter glutamate to the epsilon subunit, glycine binding to the zeta subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:8768735, PubMed:26919761, PubMed:26875626, PubMed:28105280). Sensitivity to glutamate and channel kinetics depend on the subunit composition; channels containing GRIN1 and GRIN2A have lower sensitivity to glutamate and faster deactivation kinetics than channels formed by GRIN1 and GRIN2B (PubMed:26919761, PubMed:26875626). Contributes to the slow phase of excitatory postsynaptic current, long- term synaptic potentiation, and learning (By similarity).

Cellular Location
Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q00959}. Cell membrane; Multi-pass membrane protein. Synapse {ECO:0000250|UniProtKB:P35436} Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q00959}; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P35436}. Note=Expression at the dendrite cell membrane and at synapses is regulated by SORCS2 and the retromer complex. {ECO:0000250|UniProtKB:P35436}

GRIN2A Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

GRIN2A Antibody (Center) Blocking peptide - Images

GRIN2A Antibody (Center) Blocking peptide - Background

N-methyl-D-aspartate (NMDA) receptors are a class ofionotropic glutamate-gated ion channels. These receptors have beenshown to be involved in long-term potentiation, anactivity-dependent increase in the efficiency of synaptictransmission thought to underlie certain kinds of memory andlearning. NMDA receptor channels are heteromers composed of the keyreceptor subunit NMDAR1 (GRIN1) and 1 or more of the 4 NMDAR2subunits: NMDAR2A (GRIN2A), NMDAR2B (GRIN2B), NMDAR2C (GRIN2C) andNMDAR2D (GRIN2D). Alternatively spliced transcript variantsencoding different isoforms have been found for this gene.

GRIN2A Antibody (Center) Blocking peptide - References

Endele, S., et al. Nat. Genet. 42(11):1021-1026(2010)Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)Saus, E., et al. J Psychiatr Res 44(14):971-978(2010)Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) :King, J.E., et al. Am. J. Pathol. 176(6):2819-2830(2010)