10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GRIN2A Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11390b

Specification

GRIN2A Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q12879
Other Accession	Q00959, P35436, NP_001127879.1, NP_000824.1
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**165283**
Antigen Region	**1291-1318**

GRIN2A Antibody (C-term) - 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

Target/Specificity
This GRIN2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1291-1318 amino acids from the C-terminal region of human GRIN2A.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

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
GRIN2A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GRIN2A Antibody (C-term) - Protein Information

Name GRIN2A (HGNC:4585)

Synonyms NMDAR2A

Function Component of N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with high calcium permeability and voltage-dependent block by Mg(2+) (PubMed:20890276, PubMed:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:28242877, PubMed:36117210, PubMed:38538865, PubMed:8768735). NMDARs participate in synaptic plasticity for learning and memory formation by contributing to the slow phase of excitatory postsynaptic current, long-term synaptic potentiation, and learning (By similarity). Channel activation requires binding of the neurotransmitter L-glutamate to the GluN2 subunit, glycine or D-serine binding to the GluN1 subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:27288002, PubMed:28095420, PubMed:28105280, PubMed:28126851, PubMed:28182669, PubMed:29644724, PubMed:38307912, PubMed:8768735). NMDARs mediate simultaneously the potasium efflux and the influx of calcium and sodium (By similarity). Each GluN2 subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, Ca2(+) permeability, and binding to allosteric modulators (PubMed:26875626, PubMed:26919761). Participates in the synaptic plasticity regulation through activation by the L- glutamate releaseed by BEST1, into the synaptic cleft, upon F2R/PAR-1 activation in astrocyte (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 (C-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 Cytomety
- Cell Culture

GRIN2A Antibody (C-term) - Images

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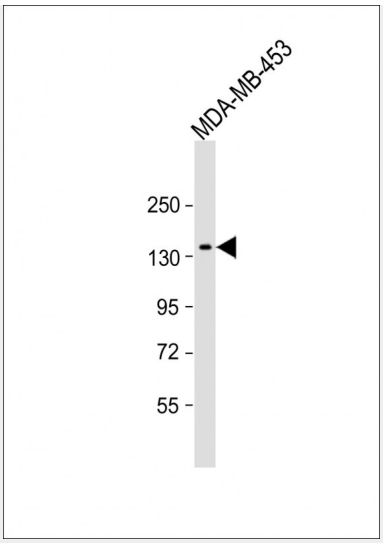
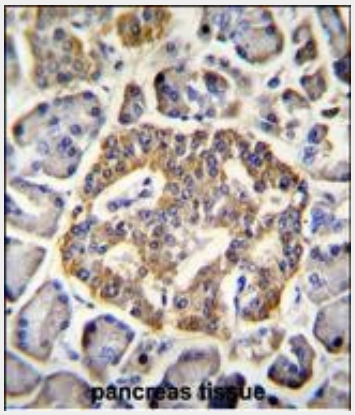
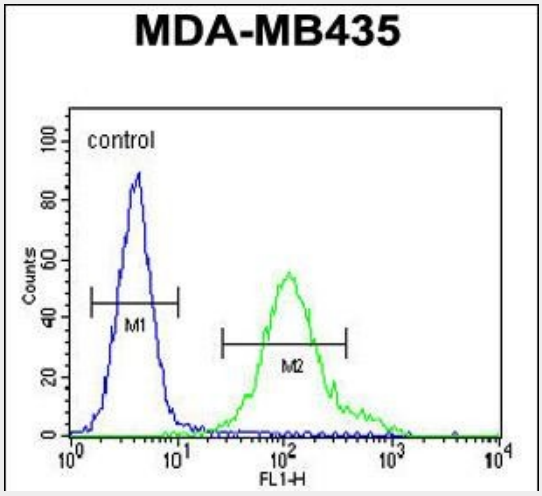


Anti-GRIN2A Antibody (C-term) at 1:1000 dilution + MDA-MB-453 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 165 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



GRIN2A Antibody (C-term) (Cat. #AP11390b)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GRIN2A Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



GRIN2A Antibody (C-term) (Cat. #AP11390b) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit

secondary antibodies were used for the analysis.

GRIN2A Antibody (C-term) - Background

N-methyl-D-aspartate (NMDA) receptors are a class of ionotropic glutamate-gated ion channels. These receptors have been shown to be involved in long-term potentiation, an activity-dependent increase in the efficiency of synaptic transmission thought to underlie certain kinds of memory and learning. NMDA receptor channels are heteromers composed of the key receptor subunit NMDAR1 (GRIN1) and 1 or more of the 4 NMDAR2 subunits: NMDAR2A (GRIN2A), NMDAR2B (GRIN2B), NMDAR2C (GRIN2C) and NMDAR2D (GRIN2D). Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

GRIN2A Antibody (C-term) - 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)
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