

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS17100**Specification**

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - Product Information

Application	IHC, WB
Primary Accession	Q12879
Other Accession	2903
Reactivity	Mouse, Rat, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	165283

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - Additional Information**Gene ID** 2903**Other Names**

GRIN2A, EPND, HNR2A, GluN2A, GluR epsilon 1, NMDA receptor 2A, NMDAR2A, NR2A, NMDA receptor subtype 2A

Target/Specificity

Specific for the ~180k NR2A subunit of the NMDA receptor

Reconstitution & Storage

10 mM HEPES, pH 7.5, 150 mM sodium chloride, 100 ug per ml BSA, 50% glycerol. Long term: -20°C; Short term: -20°C

Precautions

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - 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](http://www.uniprot.org/citations/8768735), PubMed: [26919761](http://www.uniprot.org/citations/26919761), PubMed: [26875626](http://www.uniprot.org/citations/26875626), PubMed: [28105280](http://www.uniprot.org/citations/28105280))

target="_blank">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}

Volume

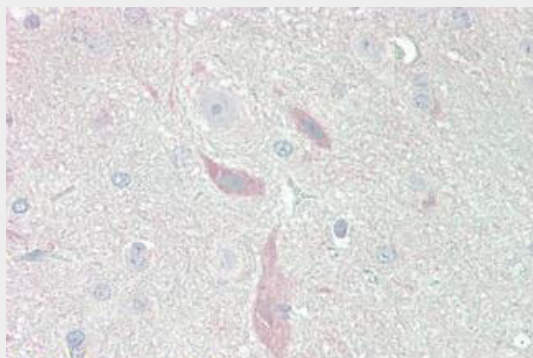
50 µl

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - Protocols

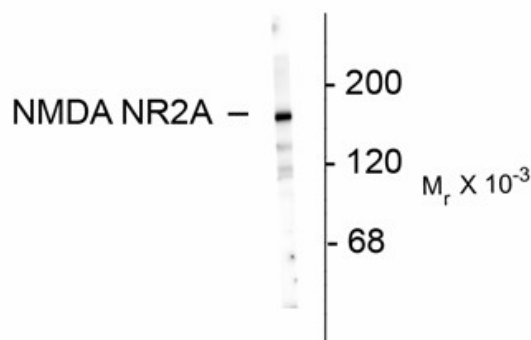
Provided below are standard protocols that you may find useful for product applications.

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

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - Images



Rat Brain: Formalin-Fixed, Paraffin-Embedded (FFPE)



Western blot of 10 ug of rat hippocampal lysate showing specific immunolabeling of the ~180k...

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - Background

NMDA receptor subtype of glutamate-gated ion channels possesses high calcium permeability and voltage-dependent sensitivity to magnesium. Activation requires binding of agonist to both types of subunits.

GRIN2A / NMDAR2A / NR2A Antibody (N-Terminus) - References

Foldes R.L., et al. Biochim. Biophys. Acta 1223:155-159(1994).
Hess S.D., et al. J. Pharmacol. Exp. Ther. 278:808-816(1996).
Martin J., et al. Nature 432:988-994(2004).
Endele S., et al. Nat. Genet. 42:1021-1026(2010).
Wei X., et al. Nat. Genet. 43:442-446(2011).