

NMDA ϵ 4 Polyclonal Antibody

Catalog # AP71338

Product Information

Application	WB, E
Primary Accession	O15399
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	143752

Additional Information

Gene ID	2906
Other Names	GRIN2D; GluN2D; NMDAR2D; Glutamate [NMDA] receptor subunit epsilon-4; EB11; N-methyl D-aspartate receptor subtype 2D; NMDAR2D; NR2D
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

Protein Information

Name	GRIN2D {ECO:0000303 PubMed:27616483, ECO:0000312 HGNC:HGNC:4588}
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: 26875626 , PubMed: 27616483 , PubMed: 28126851 , PubMed: 9489750). Participates in synaptic plasticity for learning and memory formation (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: 26875626 , PubMed: 27616483 , PubMed: 28126851 , PubMed: 9489750). NMDARs mediate simultaneously the potassium 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: 28095420 , PubMed: 28126851 , PubMed: 9489750).

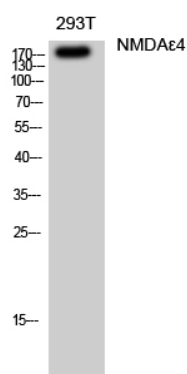
Cellular Location

Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein

Background

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:[9489750](#), PubMed:[27616483](#), PubMed:[26875626](#), PubMed:[28126851](#)). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:[9489750](#)).

Images



Western Blot analysis of 293T cells using NMDAε4 Polyclonal Antibody diluted at 1 : 500

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.