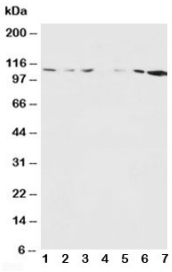
NMDAR1 Antibody / NR1 / GRIN1 (R30324)

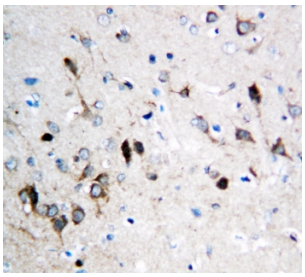
Catalog No.	Formulation	Size
R30324	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q05586
Applications	Western Blot : 0.5-1ug/ml IHC (FFPE) : 0.5-1ug/ml
Limitations	This NMDAR1 antibody is available for research use only.



Western blot testing of NMDAR1 antibody and Lane 1: rat brain; 2: rat brain; 3: rat liver; 4: rat heart; 5: human MDA-MB-453; 6: human MDA-MB-231; 7: human HeLa lysate. Predicted molecular weight ~105 kDa.



IHC testing of FFPE rat brain tissue with NMDAR1 antibody. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.

Description

The NMDA receptor (NMDAR) is a specific type of ionotropic glutamate receptor. NMDA (N-methyl D-aspartate) is the name of a selective agonist that binds to NMDA receptors but not to other glutamate receptors. Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. NMDAR1 gene is mapped to 9q34.3 and encodes a 938-amino acid protein which showed high evolutionary conservation in structure and physiologic properties. It consists of 21 exons distributed over about 31 kb. Three of the exons that are alternatively spliced in the rat and which produce 8 isoforms in that species were also present in the human sequence. The promoter region contained 2 DNA binding sites for the homeobox proteins 'even-skipped'. The gene is a candidate for the site of the mutation in torsion dystonia.The NMDA receptor is a non-specific cation channel and thus directly contributes to excitatory synaptic transmission by depolarizing the postsynaptic cell. NMDA receptors are modulated by a number of endogenous and exogenous compounds and play a key role in a wide range of physiologic and pathologic processes, such as excitotoxicity.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the NMDAR1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the N-terminus of human NMDAR1 (RKHEQMFREAVNQANKRH) was used as the immunogen for this NMDAR1 antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the NMDAR1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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