

# Summary

Production Name	NMDAζ1 (phospho Ser896) Rabbit Polyclonal Antibody		
Description	Rabbit Polyclonal Antibody		
Host	Rabbit		
Application	ELISA,IHC,WB,		
Reactivity	Human, Mouse, Rat		

#### Performance

Conjugation	Unconjugated	
Modification	Phospho Antibody	
lsotype	IgG	
Clonality	Polyclonal	
Form	Liquid	
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw	
	cycles.	
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.	
Purification	Affinity purification	

### Immunogen

Gene Name	GRIN1
Alternative Names	GRIN1; NMDAR1; Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate
	receptor subunit NR1; NMD-R1
Gene ID	2902.0
SwissProt ID	Q05586.The antiserum was produced against synthesized peptide derived from human
	NMDAR1 around the phosphorylation site of Ser896. AA range:862-911

# Application

Dilution Ratio	WB 1:500 - 1:2000	IHC 1:100 - 1:300. ELISA: 1:40000
Molecular Weight	105kD	



### Background

The protein encoded by this gene is a critical subunit of N-methyl-D-aspartate receptors, members of the glutamate receptor channel superfamily which are heteromeric protein complexes with multiple subunits arranged to form a ligandgated ion channel. These subunits play a key role in the plasticity of synapses, which is believed to underlie memory and learning. Cell-specific factors are thought to control expression of different isoforms, possibly contributing to the functional diversity of the subunits. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2008], function: NMDA receptor subtype of glutamate-gated ion channels with high calcium permeability and voltagedependent sensitivity to magnesium. Mediated by glycine. This protein plays a key role in synaptic plasticity, synaptogenesis, excitotoxicity, memory acquisition and learning. It mediates neuronal functions in glutamate neurotransmission. Is involved in the cell surface targeting of NMDA receptors., online information: NMDA receptor entry, PTM:NMDA is probably regulated by C-terminal phosphorylation of an isoform of NR1 by PKC. Dephosphorylated on Ser-897 probably by protein phosphatase 2A (PPP2CB). Its phosphorylated state is influenced by the formation of the NMDAR-PPP2CB complex and the NMDAR channel activity., similarity: Belongs to the glutamate-gated ion channel (TC 1.A.10) family, subcellular location: Enriched in post-synaptic plasma membrane and post-synaptic densities., subunit: Forms heteromeric channel of a zeta subunit (GRIN1), a epsilon subunit (GRIN2A, GRIN2B, GRIN2C or GRIN2D) and a third subunit (GRIN3A or GRIN3B); disulfide-linked. Found in a complex with GRIN2A or GRIN2B, GRIN3A or GRIN3B and PPP2CB. Interacts with DLG4 and MPDZ.,

#### **Research Area**

Calcium;Neuroactive ligand-receptor interaction;Long-term potentiation;Alzheimer's disease;Amyotrophic lateral sclerosis (ALS);Huntington's disease;

## Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using NMDAR1 (Phospho-Ser896) Antibody





Immunohistochemistry analysis of paraffin-embedded human brain, using NMDAR1 (Phospho-Ser896) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with PMA 125ng/ml 30 ', using NMDAR1 (Phospho-Ser896) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of 293T using Phospho-NMDA(1 (\$896) Polyclonal Antibody. Antibody was diluted at 1:500

#### Note

For research use only.