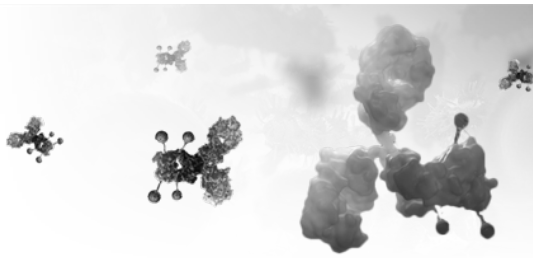

Magic™ Anti-NMDA receptor (Phospho S1480) polyclonal antibody (CPBT-66739RR)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	This product specifically recognises the 180kDa NR2B subunit of the NMDA (N-methyl- D-aspartate) receptor, when phosphorylated at Ser1480. Receptors for NMDA belong to a group of ionotropic glutamate receptors which play a key role in the mediation of glutamate neurotransmission within the mammalian central nervous system (CNS), including involvement in memory and learning processes. Several antagonists and agonists of NMDA receptors (NMDAR) have been identified, including the glutamate analogue homoquinolinic acid, which displays a higher affinity for NR2B-containing NMDAR. Properties of NMDAR include modulation by glycine, inhibition by Zn2+, voltage-dependent Mg2+ blockade and high Ca2+permeability. Studies have shown that the phosphorylation of the Ser1480 site within the C-terminal PDZ ligand of the NR2B subunit of NMDAR, by casein kinase II (CK2), results in a decrease in neuron NR2B surface expression. The involvement of NMDAR in the CNS has become a focus area for neurodegenerative diseases such as Alzheimer's disease and also epilepsy and ischemic neuronal cell death. Western Blotting detects a band of approximately 180kDa in rat hippocampal cell lysates.
Specificity	NMDAR NR2B
Target	NMDA receptor
Immunogen	Synthetic phosphopeptide corresponding to an amino acid sequence within the NR2B subunit of the rat NMDA receptor, which includes phoshorylated Ser1480.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Rat, Bovine, Chicken, Dog, Human, Mouse, Primates, Zebrafish
Conjugate	Unconjugated

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Applications	WB
Format	Purified IgG - liquid
Size	100 µl
Preservative	0.09% Sodium Azide
Storage	in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	Grin2b glutamate receptor, ionotropic, N-methyl D-aspartate 2B [Rattus norvegicus (Norway rat)]
Official Symbol	GRIN2B
Synonyms	GRIN2B; glutamate receptor, ionotropic, N-methyl D-aspartate 2B; GluN2B; glutamate receptor ionotropic, NMDA 2B; NR2B; NMDAR2B; glutamate receptor, ionotropic, NMDA2B; N-methyl D-aspartate receptor subtype 2B; glutamate [NMDA] receptor subunit epsilon-2;
Entrez Gene ID	24410
Protein Refseq	NP_036706
UniProt ID	Q00960
Chromosome Location	4q43
Pathway	Activation of NMDA receptor upon glutamate binding and postsynaptic events; Alcoholism; Alzheimers disease; Amphetamine addiction; Amyotrophic lateral sclerosis (ALS); Axon guidance; CREB phosphorylation through the activation of CaMKII; CREB phosphorylation through the activation of Ras;
Function	D2 dopamine receptor binding; N-methyl-D-aspartate selective glutamate receptor activity; beta-catenin binding; calcium channel activity; cation channel activity; cell adhesion molecule binding; drug binding; extracellular-glutamate-gated ion channel activity; glycine binding; interleukin-1 receptor binding; ionotropic glutamate receptor activity; ionotropic glutamate receptor binding; neurotransmitter binding; protein binding; protein heterodimerization activity; receptor binding; zinc ion binding;

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