Datasheet: AHP1004

BATCH NUMBER 070414

Description:	RABBIT ANTI NMDA RECEPTOR NR2B (pTyr1472)
Specificity:	NMDAR NR2B (pTyr1472)
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/1000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Rat

Species Cross Reactivity

Based on sequence similarity, is expected to react with:Zebrafish, Bovine, Human, Monkey, Mouse, Dog, Chicken

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Antiserum Preparation

Antisera to NMDA receptor NR2B subunit were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG prepared by affinity chromatography.

Buffer Solution	10mM HEPES pH7.5.
Preservative Stabilisers	0.09% Sodium Azide 0.01% Bovine Serum Albumin 50% Glycerol
Immunogen	A synthetic phosphopeptide corresponding to an amino acid sequence within the NR2B subunit of the NMDA receptor, which includes phosphorylated Tyr1472.
External Database Links	**UniProt:** Q00960 Related reagents **Entrez Gene:** 24410 Grin2b Related reagents
RRID	AB_609781
Specificity	**Rabbit anti Rat NMDA receptor NR2B (pTyr1472) antibody** recognizes NMDA receptor NR2B, also known as glutamate receptor ionotropic, NMDA 2B (GluN2B), glutamate [NMDA] receptor subunit epsilon-2 and N-methyl D-aspartate receptor subtype 2B (NMDAR2B), when phosphorylated at tyrosine 1472. 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 Zn^{2+}, voltage-dependent Mg^{2+} blockade and high Ca^{2+} permeability. The involvement of NMDAR in the CNS has become a focus area for neurodegenerative diseases such as Alzheimer's disease (Popke *et al.* 2003) and also epilepsy and ischemic neuronal cell death.
Western Blotting	AHP1004 detects a band of approximately 180 kDa in rat brain hippocampal lysates. This antibody also labels proteins of 65kDa and 115kDa.
Further Reading	1. Popke, E.J. (2003) From anticholinesterase toxicity to Alzheimer's disease: important interactions of cholinergic and NMDA receptor systems. Toxicol Sci. 72 (2): 185-7. 2. Rosenblum, K. *et al.* (1996) Long-term potentiation increases tyrosine phosphorylation of the N-methyl-D-aspartate receptor subunit 2B in rat dentate gyrus in vivo. Proc Natl Acad Sci U S A. 93 (19): 10457-60. 3. Takasu, M.A. *et al.* (2002) Modulation of NMDA receptor-dependent calcium influx and gene expression through EphB receptors. Science. 295 (5554): 491-5. 4. Ishii, T. *et al.* (1993) Molecular characterization of the family of the N-methyl-D-aspartate receptor subunits. J Biol Chem. 268 (4): 2836-43.

Storage	Store at +4°C or at -20°C if preferred. 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10088 available at: https://www.bio-rad-antibodies.com/SDS/AHP1004 10088
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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