

Datasheet: AHP1235

Description:	RABBIT ANTI NMDA RECEPTOR NR2B (pTyr1252)
Specificity:	NMDAR NR2B (pTyr1252)
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)	■			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.

(1) For the detection of phosphoproteins, tyrosine phosphatase inhibitors such as 1mM Sodium Orthovanadate should be added to the sample buffer. Milk or other casein-based blocking solutions are not recommended as casein is a phosphoprotein and its use can result in high background.

Target Species	Rat
Species Cross Reactivity	Based on sequence similarity, is expected to react with: Human, Mouse, Dog, Bovine, Chicken, Zebrafish N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Antiserum Preparation	Antisera to rat NMDAR NR2B subunit pTyr1252 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG prepared by affinity chromatography.
Buffer Solution	10 mM HEPES pH7.5
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 50% Glycerol 0.01% Bovine Serum Albumin

Immunogen Phosphopeptide corresponding to amino acid residues surrounding the phosphorylated tyrosine 1252 of the NR2B subunit of rat NMDA receptor.

External Database Links

UniProt:
[Q00960](#) [Related reagents](#)

Entrez Gene:
[24410](#) Grin2b [Related reagents](#)

Specificity **Rabbit anti Rat NMDA receptor NR2B (pTyr1252) 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 1252.

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.

The involvement of NMDAR in the CNS implicated in neurodegenerative diseases such as Alzheimer's ([Popke 2003](#)) and also epilepsy and ischemic neuronal cell death.

Western Blotting AHP1235 detects a band/s of approximately 180kDa in rat hippocampal cell lysates.

- References**
1. 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.](#)
 2. Takasu, M.A. *et al.* (2002) Modulation of NMDA receptor-dependent calcium influx and gene expression through EphB receptors. [Science. 295 \(5554\): 491-5.](#)
 3. 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.](#)
 4. 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.](#)
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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.

Shelf Life 12 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10088 available at:
10088: <https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[DyLight®680](#), [DyLight®800](#)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

'M294463:161004'

Printed on 01 May 2018

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