

## Datasheet: AHP1004

<b>Description:</b>	RABBIT ANTI NMDA RECEPTOR NR2B (pTyr1472)
<b>Specificity:</b>	NMDAR NR2B (pTyr1472)
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://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.

<b>Preservative</b>	0.09% Sodium Azide
<b>Stabilisers</b>	0.01% Bovine Serum Albumin 50% Glycerol
<b>Immunogen</b>	A synthetic phosphopeptide corresponding to an amino acid sequence within the NR2B subunit of the NMDA receptor, which includes phosphorylated Tyr1472.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q00960</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">24410</a> Grin2b    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_609781
<b>Specificity</b>	<p><b>Rabbit anti Rat NMDA receptor NR2B (pTyr1472) antibody</b> 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.</p> <p>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<sup>2+</sup>, voltage-dependent Mg<sup>2+</sup> blockade and high Ca<sup>2+</sup> permeability.</p> <p>The involvement of NMDAR in the CNS has become a focus area for neurodegenerative diseases such as Alzheimer's disease (<a href="#">Popke et al. 2003</a>) and also epilepsy and ischemic neuronal cell death.</p>
<b>Western Blotting</b>	AHP1004 detects a band of approximately 180 kDa in rat brain hippocampal lysates. This antibody also labels proteins of 65kDa and 115kDa.
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>1. Popke, E.J. (2003) From anticholinesterase toxicity to Alzheimer's disease: important interactions of cholinergic and NMDA receptor systems. <a href="#">Toxicol Sci. 72 (2): 185-7.</a></li> <li>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. <a href="#">Proc Natl Acad Sci U S A. 93 (19): 10457-60.</a></li> <li>3. Takasu, M.A. et al. (2002) Modulation of NMDA receptor-dependent calcium influx and gene expression through EphB receptors. <a href="#">Science. 295 (5554): 491-5.</a></li> <li>4. Ishii, T. et al. (1993) Molecular characterization of the family of the N-methyl-D-aspartate receptor subunits. <a href="#">J Biol Chem. 268 (4): 2836-43.</a></li> </ol>
<b>Storage</b>	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for

short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10088 available at: <a href="https://www.bio-rad-antibodies.com/SDS/AHP1004">https://www.bio-rad-antibodies.com/SDS/AHP1004</a> 10088
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
- Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
- Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
- Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)
- 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](https://bio-rad-antibodies.com/datasheets)  
'M382654:210513'

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