Product datasheet

Anti-NMDAR1 antibody ab52177

Overview

Product name: Anti-NMDAR1 antibody
Description: Rabbit polyclonal to NMDAR1
Host species: Rabbit
Specificity: ab52177 detects endogenous levels of total NMDAR1 protein.
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Human
Predicted to work with: Mouse
Immunogen: Synthetic peptide within Human NMDAR1 aa 849-913. The exact sequence is proprietary. From around the phosphorylation site of serine 897 (R-S-S-K-D).

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer: pH: 7.40
Preservative: 0.02% Sodium azide
Constituents: PBS, 0.87% Sodium chloride, 50% Glycerol (glycerin, glycerine)
Without Mg+2 and Ca+2
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab52177 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>2</td>
<td>1/500 - 1/1000. Predicted molecular weight: 105 kDa.</td>
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<tr>
<td>Application</td>
<td>Abreviews</td>
<td>Notes</td>
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<tr>
<td>IHC-P</td>
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<td>Use at an assay dependent concentration.</td>
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### Target

**Function**
NMDA receptor subtype of glutamate-gated ion channels with high calcium permeability and voltage-dependent 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.

**Sequence similarities**
Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. NR1/GRIN1 subfamily.

**Post-translational modifications**
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.

**Cellular localization**

### Images

**Western blot - Anti-NMDAR1 antibody (ab52177)**

- **All lanes**: Anti-NMDAR1 antibody (ab52177) at 1/500 dilution
- **Lane 1**: A549 (Human lung adenocarcinoma epithelial cell line) whole cell lysate
- **Lane 2**: Y79 (Human retinoblastoma cell line) whole cell lysate
- **Lane 3**: Raji (Human Burkitt's lymphoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

- **Predicted band size**: 105 kDa
- **Observed band size**: 95 kDa

*why is the actual band size different from the predicted?*

**Additional bands** at: 30 kDa, 75 kDa. We are unsure as to the identity of these extra bands.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NMDAR1 antibody (ab52177)

ab52177 at 1/50 dilution staining NMDAR1 in human brain tissue by immunohistochemistry (paraffin embedded tissue) in the presence (right image) or absence (left image) of the immunizing peptide.

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