

Product datasheet for **AP26445PU-N**

Grin2a (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IP, WB
Recommended Dilution:	Western blot: 1/1000. Immunohistochemistry: 1/1000. Immunoprecipitation: 6 µl per 200 µg lysate.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	Fusion protein from the C-terminus of the NR2A subunit of rat NMDA receptor.
Specificity:	Specific for the ~180k NR2A subunit of the NMDA receptor. No reactivity towards the NR2B and NR2C subunits. Immunolabeling is blocked by pre-adsorption of antibody with the fusion protein used to generate the antibody.
Formulation:	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol State: Aff - Purified State: Liquid Ig fraction
Purification:	Affinity purification using a column to which the fusion protein immunogen was coupled
Conjugation:	Unconjugated
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	glutamate ionotropic receptor NMDA type subunit 2A
Database Link:	Entrez Gene 24409 Rat Q00959



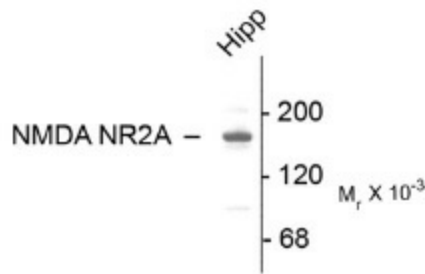
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Background:

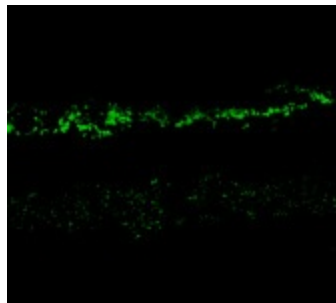
The ion channels activated by glutamate are typically divided into two classes. Glutamate receptors that are activated by kainate and α -amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as kainate/AMPA receptors (K/AMPA). Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in *Xenopus* oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1 subunit is combined with one or more of the NMDAR2 (NR2A-D) subunits.

Synonyms:

NMDAR2A, GRIN2A, NR2A

Product images:

Western blot of 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~180k NR2A subunit of the NMDA receptor.



Immunostaining of rabbit retina showing NR2A in the rod and cone photoreceptors in the outer plexiform layer as well as the entire inner plexiform layer.