

#### **GRID1** Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13651B

#### Specification

# **GRID1 Antibody (C-term) - Product Information**

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region IHC-P, WB,E <u>O9ULK0</u> <u>O62640</u>, <u>O61627</u>, <u>NP\_060021.1</u> Mouse Rat Rabbit Polyclonal Rabbit IgG 112131 846-875

#### **GRID1** Antibody (C-term) - Additional Information

Gene ID 2894

Other Names Glutamate receptor ionotropic, delta-1, GluD1, GluR delta-1 subunit, GRID1, KIAA1220

Target/Specificity

This GRID1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 846-875 amino acids from the C-terminal region of human GRID1.

**Dilution** IHC-P~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** 

GRID1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## **GRID1** Antibody (C-term) - Protein Information

Name GRID1 (HGNC:4575)



## Synonyms KIAA1220

**Function** Member of the ionotropic glutamate receptor family, which plays a crucial role in synaptic organization and signal transduction in the central nervous system. Although it shares structural features with ionotropic glutamate receptors, does not bind glutamate as a primary ligand (PubMed:<u>38060673</u>). Instead, forms trans-synaptic adhesion complexes with presynaptic neurexins and cerebellins, regulating NMDA and AMPA receptor activity and influencing synaptic plasticity through signal transduction (By similarity). In the presence of neurexins and cerebellins, forms cation-selective channels that are proposed to be gated by glycine and D-serine (By similarity). However, recent research disputes this ligand-gated cation channel activity (PubMed:<u>39052831</u>). Cation-selective ion channel can be triggered by GRM1 in dopaminergic neurons (By similarity). Also acts as a receptor for GABA, modulating inhibitory synaptic plasticity through non- ionotropic mechanisms (PubMed:<u>38060673</u>).

**Cellular Location** 

Postsynaptic cell membrane; Multi-pass membrane protein

## **GRID1 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# GRID1 Antibody (C-term) - Images



GRID1 Antibody (C-term) (Cat. #AP13651b) western blot analysis in mouse bladder tissue lysates (35ug/lane).This demonstrates the GRID1 antibody detected the GRID1 protein (arrow).





GRID1 Antibody (C-term) (Cat. #AP13651b)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of GRID1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

# GRID1 Antibody (C-term) - Background

This gene encodes a subunit of glutamate receptor channels. These channels mediate most of the fast excitatory synaptic transmission in the central nervous system and play key roles in synaptic plasticity.

#### **GRID1 Antibody (C-term) - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Vasan, R.S., et al. JAMA 302(2):168-178(2009) Treutlein, J., et al. Schizophr. Res. 111 (1-3), 123-130 (2009) : Guo, S.Z., et al. Schizophr. Res. 93 (1-3), 385-390 (2007) : Fallin, M.D., et al. Am. J. Hum. Genet. 77(6):918-936(2005)