

**GRIP1 Antibody**  
**Catalog # ASC11614****Specification**

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**GRIP1 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q9Y3R0</a>
Other Accession	<a href="#">NP_066973</a> , <a href="#">223890252</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 118 kDa KDa
Application Notes	GRIP1 antibody can be used for detection of GRIP1 by Western blot at 1 - 2 µg/mL.

**GRIP1 Antibody - Additional Information**

Gene ID	23426
Target/Specificity	
GRIP1;	

**Reconstitution & Storage**

GRIP1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

GRIP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**GRIP1 Antibody - Protein Information**

**Name** GRIP1

**Function**

May play a role as a localized scaffold for the assembly of a multiprotein signaling complex and as mediator of the trafficking of its binding partners at specific subcellular location in neurons (PubMed:<a href="http://www.uniprot.org/citations/10197531" target="\_blank">10197531</a>). Through complex formation with NSG1, GRIA2 and STX12 controls the intracellular fate of AMPAR and the endosomal sorting of the GRIA2 subunit toward recycling and membrane targeting (By similarity).

**Cellular Location**

Cytoplasmic vesicle. Perikaryon {ECO:0000250|UniProtKB:P97879}. Cell projection, dendrite {ECO:0000250|UniProtKB:P97879}. Cytoplasm {ECO:0000250|UniProtKB:P97879}. Endomembrane system {ECO:0000250|UniProtKB:P97879}; Peripheral membrane protein {ECO:0000250|UniProtKB:P97879}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:P97879}. Postsynaptic density {ECO:0000250|UniProtKB:P97879}. Endoplasmic reticulum membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P97879}. Note=Membrane-associated with vesicles, peri-Golgi

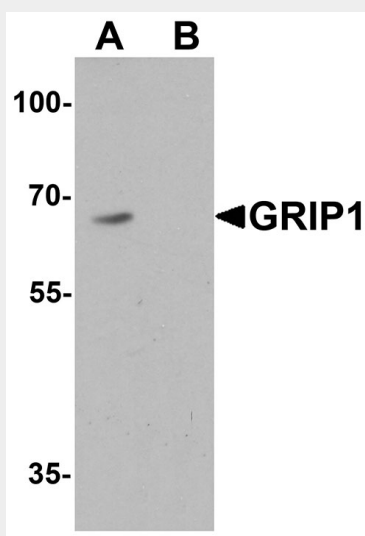
complexes and endoplasmic reticulum. Enriched in postsynaptic plasma membrane and postsynaptic densities {ECO:0000250|UniProtKB:P97879}

### GRIP1 Antibody - Protocols

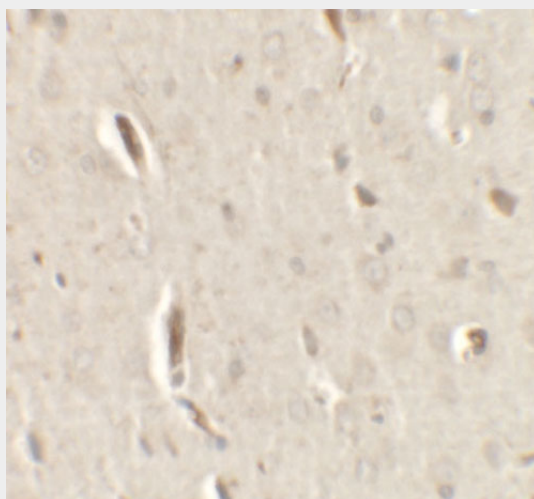
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

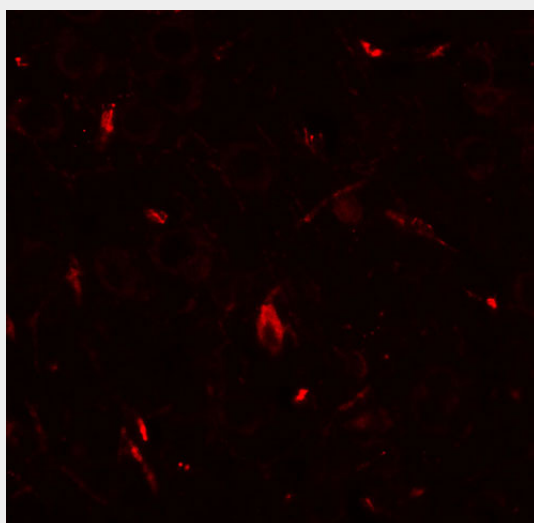
### GRIP1 Antibody - Images



Western blot analysis of GRIP1 in HeLa cell lysate with GRIP1 antibody at 1  $\mu$ g/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of GRIP1 in rat brain tissue with GRIP1 antibody at 2.5 µg/ml.



Immunofluorescence of GRIP1 in rat brain tissue with GRIP1 antibody at 20 µg/ml.

### **GRIP1 Antibody - Background**

GRIP1 Antibody: Glutamate receptors play an important role in neural plasticity, development and degeneration. The glutamate receptor interacting proteins, GRIP1 and GRIP2, members of the PDZ domain-containing protein family, mediate the trafficking and membrane organization of a number of transmembrane proteins. GRIP1 and GRIP2 specifically bind to the AMPA receptor subunits, GluR 2/3 and are involved in the targeting of GluR 2/3 to the synapse. GRIP1 is expressed in early development before the expression of AMPA receptors, while GRIP2 expression parallels that of AMPA receptors during later developmental stages. GRIP1 and GRIP2 may be involved in the induction of cerebellar long-term depression (LTD).

### **GRIP1 Antibody - References**

Nakanishi S. Molecular diversity of glutamate receptors and implications for brain function. *Science* 1992; 258:597-603.  
Dong H, Zhang P, Song I, et al. Characterization of the glutamate receptor-interacting proteins GRIP1 and GRIP2. *J. Neurosci.* 1999; 19:6930-41.  
Mao L, Takamiya K, Thomas G, et al. GRIP1 and 2 regulate activity-dependent AMPA receptor recycling via exocyst complex interactions. *Proc. Natl. Acad. Sci. USA* 2010; 107:19038-43.  
Thomas GM, Hayashi T, Chiu SL, et al. Palmitoylation by DHHC5/8 targets GRIP1 to dendritic endosomes to regulate AMPA-R trafficking. *Neuron* 2012; 73:482-96.