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Grik1 Antibody
Catalog # ASC10606

Specification

Grik1 Antibody - Product Information

Application	**WB**
Primary Accession	P39086
Other Accession	P39086, 2897
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Grik1 antibody can be used for detection of Grik1 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

Grik1 Antibody - Additional Information

Gene ID	**2897**

Target/Specificity
Grik1 antibody was raised against a 15 amino acid synthetic peptide near the carboxy terminus of the human Grik1.

The immunogen is located within the last 50 amino acids of Grik1.

Reconstitution & Storage
Grik1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Grik1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Grik1 Antibody - Protein Information

Name GRIK1

Synonyms GLUR5

Function
Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. May be involved in the transmission of light information from the retina to the hypothalamus.

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Cellular Location
Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein

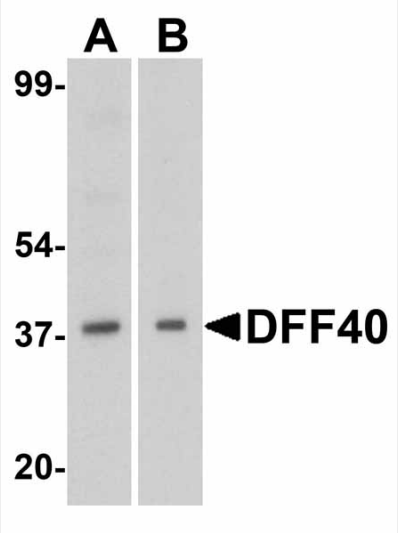
Tissue Location
Most abundant in the cerebellum and the suprachiasmatic nuclei (SCN) of the hypothalamus

Grik1 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 Cytomety
- Cell Culture

Grik1 Antibody - Images



Western blot analysis of DFF40 in (A) K562 and (B) and Jurkat cell lysate with DFF40 antibody at 1 µg/mL.

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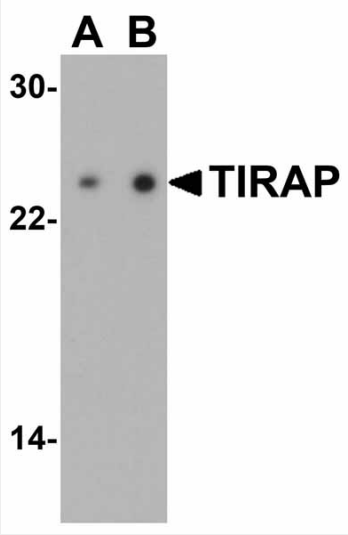

Western blot analysis of TIRAP in human heart tissue lysate with TIRAP antibody at (A) 1 and (B) 2 µg/mL.

Grik1 Antibody - Background

Grik1 Antibody: Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. Grik1, also known as glutamate receptor 5, belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. Grik1 is expressed in GABAergic interneurons of the hippocampus and are thought to participate in the formation of various subtypes of kainate receptors with Grik2 and KA2. Stimulation of Grik1 leads to intracellular calcium release and activation of protein kinase C. Excessive activation has been associated with psychiatric, neurological and neurodegenerative diseases. Numerous isoforms of Grik1 are known to exist and may be subject to RNA editing within the second transmembrane domain, which is thought to alter the properties of ion flow.

Grik1 Antibody - References

Tanaka K. Functions of glutamate transports in the brain. Neurosci. Res.2000; 37:15-9.
Pinheiro P and Mulle C. Kainate receptors. Cell Tissue Res.2006; 326:457-82.
Bureau I, Dieudonne S, Coussen F, et al. Kainate receptor-mediated responses in the CA1 field of wild-type and GluR6-deficient mice. J. Neurosci.1999; 19:653-63.
Christensen JK, Paternain AV, Selak S, et al. A mosaic of functional kainate receptors in hippocampal interneurons. J. Neurosci.2004; 24:8986-93.