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Grik2 Antibody

Catalog # ASC10608

Product Information

Application	WB, E
Primary Accession	Q13002
Other Accession	Q13002, 2492627
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	102583
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Grik2 antibody can be used for detection of Grik2 by Western blot at 0.5 - 1 g/mL.

Additional Information

Gene ID	2898
Other Names	Glutamate receptor ionotropic, kainate 2, GluK2, Excitatory amino acid receptor 4, EAA4, Glutamate receptor 6, GluR-6, GluR6, GRIK2, GLUR6
Target/Specificity	GRIK2;
Reconstitution & Storage	Grik2 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	Grik2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRIK2
Synonyms	GLUR6
Function	Ionotropic glutamate receptor that functions as a cation- permeable ligand-gated ion channel, gated by L-glutamate and the glutamatergic agonist kainic acid (PubMed:7536611, PubMed:8730589, PubMed:14511640). L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system (By similarity). Binding of the excitatory neurotransmitter L-glutamate induces a conformational change leading to the opening of the cation channel, converting the chemical signal to an electrical impulse (By similarity). The receptor then desensitizes rapidly and enters a

	transient inactive state, characterized by the presence of bound agonist (PubMed:14511640, PubMed:28180184, PubMed:34375587, PubMed:7536611, PubMed:8730589). Modulates cell surface expression of NETO2 (By similarity). In association with GRIK3, involved in presynaptic facilitation of glutamate release at hippocampal mossy fiber synapses (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P42260}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:P42260}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P42260}
Tissue Location	Expression is higher in cerebellum than in cerebral cortex.

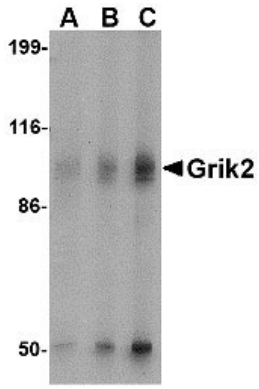
Background

Grik2 Antibody: Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. Grik2, also known as glutamate receptor 6, belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. Recent reports have suggested that defects in the Grik2 protein may be associated with autosomal recessive mental retardation and possibly other neurological disorders such as schizophrenia. Numerous isoforms of Grik2 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. This Grik2 antibody may exhibit some cross-reactivity to Grik3.

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.
Paschen W, Blackstone CD, Huganir RL, et al. Human GluR6 kainate receptor (GRIK2): molecular cloning, expression, polymorphism, and chromosomal assignment. Genomics1994; 20:435-40.
Motazacker MM, Rost BR, Hucho T, et al. A defect in the ionotrophic glutamate receptor 6 gene (GRIK2) is associated with autosomal recessive mental retardation. Am. J. Hum. Genet.2007; 81:792-8.

Images



Western blot analysis of Grik2 in human brain tissue lysate with Grik2 antibody at (A) 0.5 and (B) 1 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.