

Immunotag™ GRIK2 (GluR6) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITM3562
Product Description	Immunotag™ GRIK2 (GluR6) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	GRIK2 (GluR6)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	IHC-p
Recommended Dilution	IHC 1:100-200
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Rabbit
Immunogen	Synthetic Peptide of GRIK2 (GluR6)
Specificity	GRIK2(GluR6) protein(A240) detects endogenous levels of GRIK2(GluR6)
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	GRIK2
Accession No.	Q13002 P39087
Alternate Names	Glutamate receptor, ionotropic kainate 2 (Excitatory amino acid receptor 4) (EAA4) (Glutamate receptor 6) (GluR-6) (GluR6)

Antibody Specification

Description	glutamate ionotropic receptor kainate type subunit 2(GRIK2) Homo sapiens Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. This gene product belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. The subunit encoded by this gene is subject to RNA editing at multiple sites within the first and second transmembrane domains, which is thought to alter the structure and function of the receptor complex. Alternatively spliced transcript variants encoding different isoforms have also been described for this gene. Mutations in this gene have been associated with autosomal recessive mental retardation. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Neuroactive ligand-receptor interaction,
Protein Expression	Brain,Cerebellum,Fetal brain,Peripheral Nervous Sys
Subcellular Localization	plasma membrane,integral component of plasma membrane,postsynaptic density,integral component of membrane,cell junction,dendrite cytoplasm,kainate selective glutamate receptor complex,presynaptic membrane,terminal bouton,
Protein Function	disease:Defects in GRIK2 are the cause of autosomal recessive mental retardation type 6 (MRT6) [MIM:611092]. Patients display mild to severe mental retardation and psychomotor development delay in early childhood. Patients do not have neurologic problems, congenital malformations, or facial dysmorphism. Body height, weight, and head circumference are normal in all patients. Magnetic resonance imaging (MRI) scan, reveals no morphologic abnormalities.,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.,miscellaneous:The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists. This receptor binds domoate > kainate > quisqualate > 6-cyano-7-nitroquinoxaline-2,3-dione > L-glutamate = 6,7-dinitroquinoxaline-2,3-dione > dihydrokainate.,PTM:Sumoylation mediates kainate receptor-mediated endocytosis and regulates synaptic transmission. Sumoylation is enhanced by PIAS3 and desumoylated by SENP1.,RNA editing:Partially edited. The presence of Gln at position 621 (non-edited) determines channels with low calcium permeability, whereas Arg (edited) determines a higher calcium permeability especially if the preceding sites are fully edited. This receptor is nearly completely edited in all gray matter structures (90% of the receptors), whereas much less edited in the white matter (10% of the receptors).,similarity:Belongs to the glutamate-gated ion channel (TC 1.A.10) family.,subunit:Homotetramer or heterotetramer of pore-forming glutamate receptor subunits. Tetramers may be formed by the dimerization of dimers (Probable). Assembles into a kainate-gated homomeric channel that does not bind AMPA. GRIK2 associated to GRIK5 forms functional channels that can be gated by AMPA (By similarity). Interacts with DLG4.,tissue specificity:Expression is higher in cerebellum than in cerebral cortex.,
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