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Rabbit Anti-GRIK2 + GRIK3 antibody

SL12008R

Product Name:	GRIK2 + GRIK3
Chinese Name:	谷氨酸受体红藻氨酸离子2/3抗体
Alias:	GRIK2+GRIK3; G protein coupled receptor family C group 1 member F; GLR 6; GLR6; GLUR 6; GluR-6; GLUR6; Glutamate receptor 6; Glutamate receptor; Glutamate receptor ionotropic kainate 2; Gprc 1f; Gprc1f; GRIK 2; GRIK2; GRIK2 protein; GRIK2_HUMAN; GRM 6; ionotropic kainate 2; EAA5; Excitatory amino acid receptor 5; GLR 7; GLR7; GLU R7; GLUR 7; GluR 7a; GluR-7; GLUR7; GluR7a; Glutamate receptor 7; Glutamate receptor; Glutamate receptor ionotropic kainate 3; GRIK 3; GRIK3; GRIK3_HUMAN; ionotropic kainate 3.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,Monkey,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	99kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GRIK1 + GRIK2 + GRIK3:661-760/908
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

Product Detail:	Glutamate receptors mediate most excitatory neurotransmission in the brain and play an important role in neural plasticity, neural development and neurodegeneration. Ionotropic glutamate receptors are categorized into NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-specific ion channels. Kainate/AMPA receptors are co-localized with NMDA receptors in many synapses and consist of seven structurally related subunits designated GluR-1 to -7. The kainate/AMPA receptors are primarily responsible for the fast excitatory neuro-transmission by glutamate, whereas the NMDA receptors are functionally characterized by a slow kinetic and a high permeability for Ca2+ ions. The NMDA receptors consist of five subunits: epsilion 1, 2, 3, 4 and one zeta subunit. The zeta subunit is expressed throughout the brainstem, whereas the four epsilon subunits display limited distribution. **Function:** Receptor for glutamate. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. 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 >> L-glutamate = quisqualate >> AMPA = NMDA. **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. Interacts with NETO2 (By similarity). Interacts (via C-terminus) with KLHL17 (via kelch repeats); the interaction targets GRIK2 for degradation via ubiquitin-proteasome pathway (By similarity). **Subcellular Location:** Cell membrane; Multi-pass membrane protein. Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. **Tissue Specificity:** Expression is higher in cerebellum than in cerebral cortex. **Post-translational modifications:** Sumoylation mediates kainate receptor-mediated endocytosis and regulates synaptic transmission. Sumoylation is enhanced by PIAS3 and desumoylated by SENP1. Ubiquitinated. Ubiquitination regulates the GRIK2 levels at the synapse by leading kainate receptor degradation through proteasome. Phosphorylated by PKC at Ser-868 upon agonist activation, this directly enhance sumoylation. **DISEASE:** Defects in GRIK2 are the cause of mental retardation autosomal recessive type 6 (MRT6) [MIM:611092]. It is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and

manifested during the developmental period. In contrast to syndromic or specific mental retardation which also present with associated physical, neurological and/or psychiatric manifestations, intellectual deficiency is the only primary symptom of non-syndromic mental retardation. MRT6 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.

Similarity:
Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIK3 subfamily.

SWISS:
Q13002

Gene ID:
2897
2898

Database links:

Entrez Gene: 2898Human

Entrez Gene: 14806Mouse

Entrez Gene: 54257Rat

Omim: 138244Human

SwissProt: Q13002Human

SwissProt: P39087Mouse

SwissProt: P42260Rat

Unigene: 98262Human

Unigene: 332838Mouse

Unigene: 87696Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.