SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-GRIK2 antibody

SL12006R

Product Name	GRIK2
Chinese Name	谷氨酸受体红藻氨酸离子 2/谷氨酸受体 6 抗体
Alias	CSNB 1B; DKFZp686H1993; EAA4; Excitatory amino acid receptor 4; G protein coupled recep group 1 member F; GLR 6; GLR6; GLUR 6; GluR-6; GLUR6; Glutamate receptor 6; Glutamate Glutamate receptor ionotropic kainate 2; Gprc 1f; Gprc1f; GRIK 2; GRIK2; GRIK2 protein; GR GRM 6; ionotropic kainate 2.
Research Area	Cell biology Neurobiology Signal transduction Channel protein The cell membrane 受体 G prot receptor G protein signal
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted: Human, Mouse, Rat, Dog, Pig, Cow, Horse, Sheep,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	99kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human GRIK2/GLR6: 164-270/908 <Extracellu
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d applications.

PubMed PubMed

Glutamate receptors mediate most excitatory neurotransmission in the brain and play an importar plasticity, neural development and neurodegeneration. Ionotropic glutamate receptors are catego NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-s channels. Kainate/AMPA receptors are co-localized with NMDA receptors in many synapses an seven structurally related subunits designated GluR-1 to -7. The kainate/AMPA receptors are pri responsible for the fast excitatory neuro-transmission by glutamate, whereas the NMDA recepto functionally characterized by a slow kinetic and a high permeability for Ca2+ ions. The NMDA re of five subunits: epsilion 1, 2, 3, 4 and one zeta subunit. The zeta subunit is expressed throughou whereas the four epsilon subunits display limited distribution.

Product Detail

Function:
Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synaps nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation to the opening of the cation channel, and thereby converts the chemical signal to an electrical im receptor then desensitizes rapidly and enters a transient inactive state, characterized by the prese agonist. May be involved in the transmission of light information from the retina to the hypothalar cell surface expression of NETO2.

Subunit:
Homotetramer or heterotetramer of pore-forming glutamate receptor subunits. Tetramers may be dimerization of dimers (Probable). Assembles into a kainate-gated homomeric channel that does AMPA. GRIK2 associated to GRIK5 forms functional channels that can be gated by AMPA (By Interacts with DLG4. Interacts with NETO2 (By similarity). Interacts (via C-terminus) with KLH repeats); the interaction targets GRIK2 for degradation via ubiquitin-proteasome pathway

Subcellular Location:
Cell membrane; Multi-pass membrane protein. Cell junction, synapse, postsynaptic cell membra 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 transmissio is enhanced by PIAS3 and desumoylated by SENP1.
Ubiquitinated. Ubiquitination regulates the GRIK2 levels at the synapse by leading kainate recep through proteasome.

DISEASE:
Defects in GRIK2 are the cause of mental retardation autosomal recessive type 6 (MRT6) [MIM characterized by significantly sub-average general intellectual functioning associated with impai adaptative behavior and manifested during the developmental period. In contrast to syndromic or retardation which also present with associated physical, neurological and/or psychiatric manifest

intellectual deficiency is the only primary symptom of non-syndromic mental retardation. MRT6 mild to severe mental retardation and psychomotor development delay in early childhood. Patien neurologic problems, congenital malformations, or facial dysmorphism. Body height, weight, an circumference are normal.

Similarity:
Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIK2 subfamily.

SWISS:
Q13002

Gene ID:
2898

Database links:

Entrez Gene: 2898 Human

Entrez Gene: 14806 Mouse

Entrez Gene: 54257 Rat

Omim: 138244 Human

SwissProt: Q13002 Human

SwissProt: P39087 Mouse

SwissProt: P42260 Rat

Unigene: 98262 Human

Unigene: 332838 Mouse

Unigene: 87696 Rat