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Glutamate receptor 3 Rabbit pAb

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Catalog # AP56920

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P42263
Reactivity	Human
Predicted	Rat, Pig, Dog, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	101157
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GLUR3
Epitope Specificity	451-550/894
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein. Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Note=Interaction with CNIH2 and CNIH3 promotes cell surface expression (By similarity).
DISEASE	Defects in GRIA3 are the cause of mental retardation X-linked type 94 (MRX94) [MIM:300699]. Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and manifested during the developmental period. MRX94 patients have moderate mental retardation. Other variable features are macrocephaly, seizures, myoclonic jerks, autistic behavior, asthenic body habitus, distal muscle weakness and hyporeflexia.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	L-Glutamate is the major excitatory neurotransmitter in the mammalian CNS, acting through both ligand gated ion channels (ionotropic receptors) and G-protein coupled (metabotropic) receptors. As such the glutamate receptors play a vital role in the mediation of excitatory synaptic transmission. The ionotropic glutamate receptors are multimeric assemblies of four or five subunits, and are subdivided into three groups (AMPA, NMDA and Kainate receptors) based on their pharmacology structural similarities Glutamate Receptor 3 is a ionotropic, AMPA-selective, membrane bound protein widely distributed in the CNS. Predominant expression is seen in the neuronal cells of the cerebral cortex, dentate gyrus, and glial cells throughout brain regions. AMPA receptors mediate fast synaptic transmission in the CNS and are composed of subunits GluR1-4, products from separate genes. Glutamate Receptor 3 exists in 2 named isoforms - Flip and Flop, produced by alternative splicing.

Additional Information

Gene ID	2892
Other Names	Glutamate receptor 3, GluR-3, AMPA-selective glutamate receptor 3, GluR-C, GluR-K3, Glutamate receptor ionotropic, AMPA 3, GRIA3 (HGNC:4573), GluA3, GLUR3, GLURC
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	GRIA3 (HGNC:4573)
Synonyms	GluA3, GLUR3, GLURC
Function	Ionotropic glutamate receptor that functions as a ligand- gated cation channel, gated by L-glutamate and glutamatergic agonists such as alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA), quisqualic acid, and kainic acid (By similarity). L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system and plays an important role in fast excitatory synaptic transmission by inducing long-term potentiation (By similarity). 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 upon entry of calcium (PubMed:17989220). The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist (PubMed:17989220). In the presence of CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate (PubMed:21172611).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P19492} Postsynaptic cell membrane {ECO:0000250|UniProtKB:P19492}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P19492}. Postsynaptic density membrane {ECO:0000250|UniProtKB:P19492}

Background

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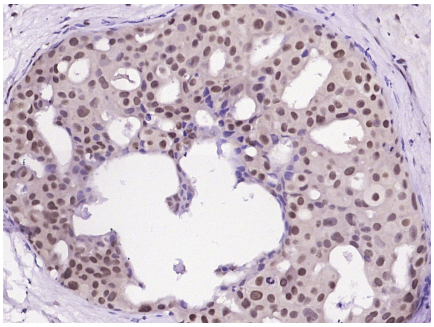
Images

Paraformaldehyde-fixed, paraffin embedded (Human breast cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Glutamate receptor 3) Polyclonal Antibody, Unconjugated (AP56920) at 1:400 overnight at 4°C, followed by operating according to SP



Kit(Rabbit) (sp-0023) instructions and DAB staining.