10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GRIA2

Purified Mouse Monoclonal Antibody
Catalog # AO2571a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P42262
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7A7D12
Isotype	Mouse IgG2b
Calculated MW	98821
Immunogen	Purified recombinant fragment of human GRIA2 (AA: 35-175) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	2891
Other Names	GLUR2; GLURB; GluA2; HBGR2; GluR-K2
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GRIA2 is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRIA2 (HGNC:4572)
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 (PubMed:20614889, PubMed:31300657, PubMed:8003671). 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 (PubMed:14687553). 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 monovalent and divalent cations such as sodium and calcium (PubMed:20614889, PubMed:8003671). The receptor then desensitizes rapidly and enters in a transient inactive state, characterized by the presence of bound agonist (By similarity). In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of L-glutamate (By similarity). Through complex formation with NSG1, GRIP1 and STX12 controls the intracellular fate of AMPAR and the endosomal sorting of the GRIA2 subunit toward recycling and membrane targeting (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein. Postsynaptic density membrane {ECO:0000250|UniProtKB:P23819}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P23819}. Note=Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression (By similarity). Displays a somatodendritic localization and is excluded from axons in neurons (By similarity). {ECO:0000250|UniProtKB:P19491, ECO:0000250|UniProtKB:P23819}

References

1.Histopathology. 2014 Jul;65(1):71-80.2.Proc Natl Acad Sci U S A. 2011 Jan 4;108(1):367-72.

Images

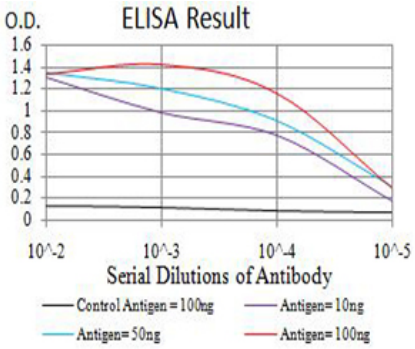


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

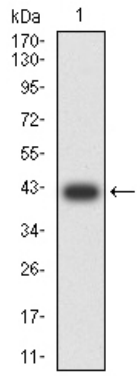
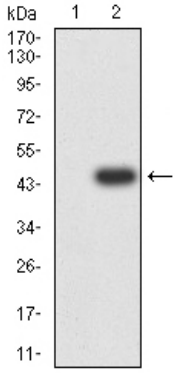


Figure 2:Western blot analysis using GRIA2 mAb against human GRIA2 (AA: 35-175) recombinant protein. (Expected MW is 41.9 kDa)

Figure 3:Western blot analysis using GRIA2 mAb against HEK293 (1) and GRIA2 (AA: 35-175)-hIgGFc transfected HEK293 (2) cell lysate.



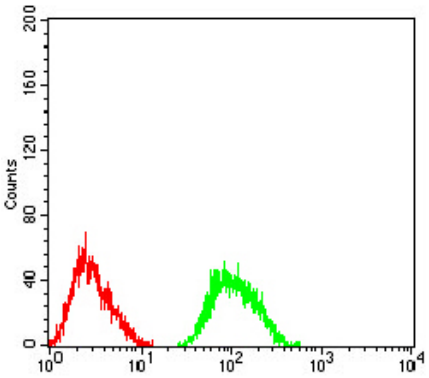


Figure 4:Flow cytometric analysis of SK-N-SH cells using GRIA2 mouse mAb (green) and negative control (red).