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# GRIA2

Purified Mouse Monoclonal Antibody
Catalog # AO2563a

## Product Information

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|---|---|
| **Application** | WB, IHC, ICC, E |
| **Primary Accession** | P42262 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 7A7A3 |
| **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

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| **Gene ID** | 2891 |
| **Other Names** | GLUR2; GLURB; GluA2; HBGR2; GluR-K2 |
| **Dilution** | WB~~ 1/500 - 1/2000 IHC~~1/200 - 1/1000 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

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| **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

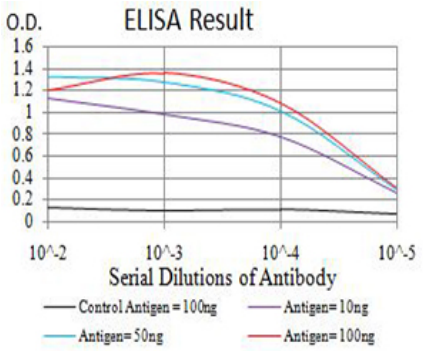



Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

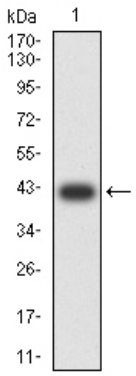
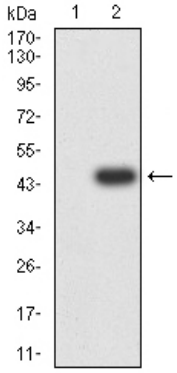



Figure 2:Western blot analysis using GRIA2 mAb against human GRIA2 (AA: 35-175) recombinant protein. (Expected MW is 41.9 kDa)

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



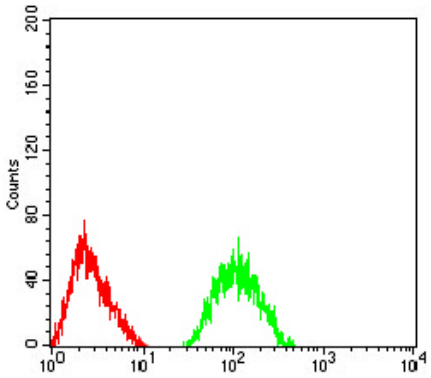




Figure 4:Flow cytometric analysis of SK-N-SH cells using GRIA2 mouse mAb (green) and negative control (red).

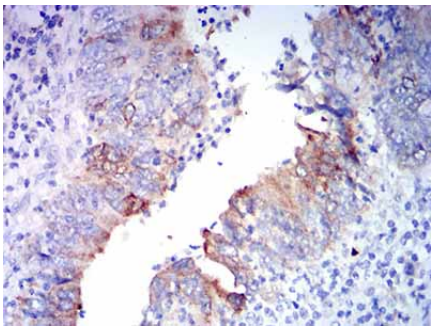


Figure 5:Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using GRIA2 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.