

**GRM7**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2570a****Specification**

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**GRM7 - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC, ICC, E        |
| Primary Accession | <a href="#">Q14831</a> |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Isotype           | Mouse IgG1             |
| Calculated MW     | 102.3kDa KDa           |

**Immunogen**

Purified recombinant fragment of human GRM7 (AA: 454-590) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**GRM7 - Additional Information**

**Gene ID** 2917

**Other Names**

GLUR7; MGLU7; GPRC1G; MGLUR7; PPP1R87

**Dilution**

WB~~ 1/300 - 1/800  
IHC~~ 1:100~500  
ICC~~ 1/200 - 1/1000  
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**

GRM7 is for research use only and not for use in diagnostic or therapeutic procedures.

**GRM7 - Protein Information**

**Name** GRM7

**Synonyms** GPRC1G, MGLUR7

**Function**

G-protein coupled receptor activated by glutamate that regulates axon outgrowth through the

MAPK-cAMP-PKA signaling pathway during neuronal development (PubMed:<a href="http://www.uniprot.org/citations/33500274" target="\_blank">33500274</a>). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide- binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase that it inhibits (PubMed:<a href="http://www.uniprot.org/citations/9473604" target="\_blank">9473604</a>).

### Cellular Location

Cell membrane; Multi-pass membrane protein

### Tissue Location

Expressed in many areas of the brain, especially in the cerebral cortex, hippocampus, and cerebellum. Expression of GRM7 isoforms in non-neuronal tissues appears to be restricted to isoform 3 and isoform 4.

## GRM7 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## GRM7 - Images

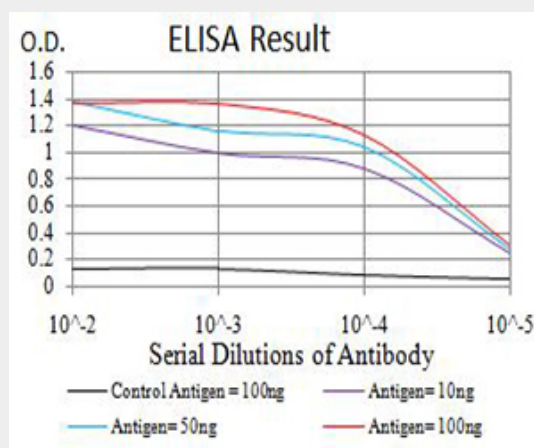


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

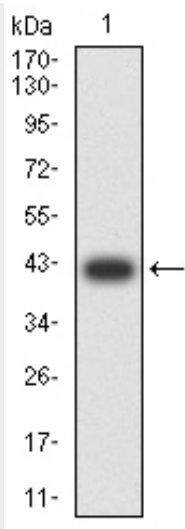


Figure 2: Western blot analysis using GRM7 mAb against human GRM7 (AA: 454-590) recombinant protein. (Expected MW is 41.7 kDa)

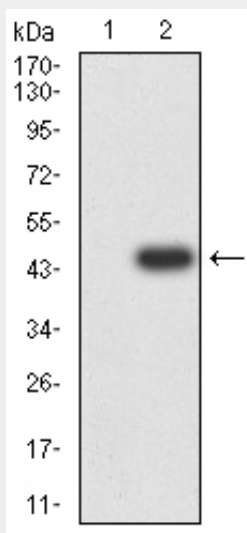


Figure 3: Western blot analysis using GRM7 mAb against HEK293 (1) and GRM7 (AA: 454-590)-hlgGfC transfected HEK293 (2) cell lysate.

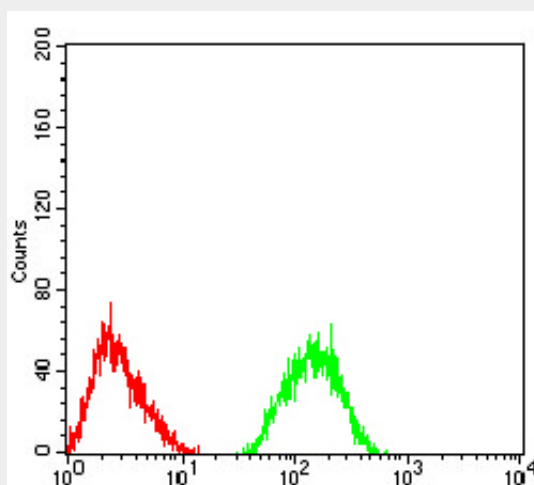


Figure 6: Flow cytometric analysis of SH-SY5Y cells using GRM7 mouse mAb (green) and negative

control (red).

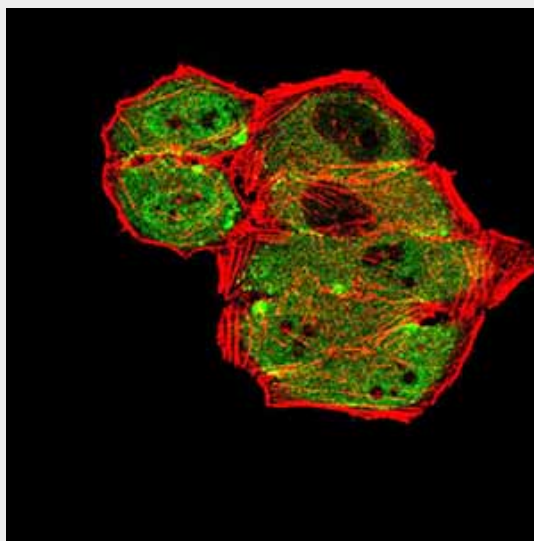


Figure 4:Immunofluorescence analysis of Hela cells using GRM7 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

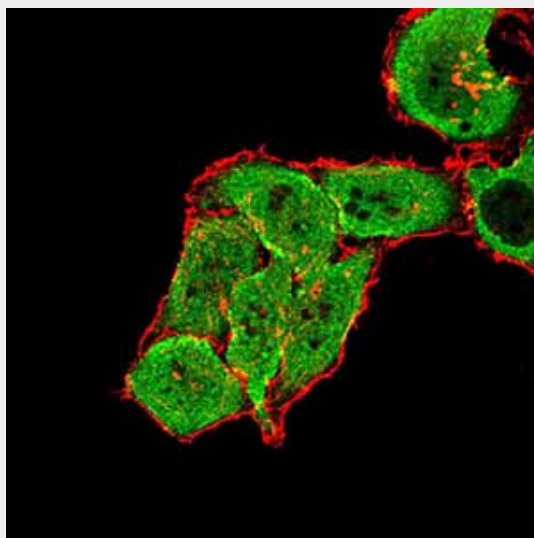


Figure 5:Immunofluorescence analysis of SMMC-7721 cells using GRM7 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

#### GRM7 - References

1.Psychiatr Genet. 2014 Dec;24(6):281-2.2.Life Sci. 2013 Feb 7;92(2):149-53.