

## Product datasheet for **TA321217**

### Metabotropic Glutamate Receptor 1 (GRM1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: Human brain IHC: 15-50 Positive control: Human breast cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to a region derived from 31-44 amino acids of Human glutamate receptor, metabotropic 1
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	132 kDa
Gene Name:	glutamate metabotropic receptor 1
Database Link:	<a href="#">NP_000829</a> <a href="#">Entrez Gene 14816 Mouse</a> <a href="#">Entrez Gene 24414 Rat</a> <a href="#">Entrez Gene 2911 Human</a> <a href="#">Q13255</a>



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**Background:**

L-glutamate is the major excitatory neurotransmitter in the central nervous system and activates both ionotropic and metabotropic glutamate receptors. Glutamatergic neurotransmission is involved in most aspects of normal brain function and can be perturbed in many neuropathologic conditions. The metabotropic glutamate receptors are a family of G protein-coupled receptors; that have been divided into 3 groups on the basis of sequence homology; putative signal transduction mechanisms; and pharmacologic properties. Group I includes GRM1 and GRM5 and these receptors have been shown to activate phospholipase C. Group II includes GRM2 and GRM3 while Group III includes GRM4; GRM6; GRM7 and GRM8. Group II and III receptors are linked to the inhibition of the cyclic AMP cascade but differ in their agonist selectivities. The canonical alpha isoform of the metabotropic glutamate receptor 1 gene is a disulfide-linked homodimer whose activity is mediated by a G-protein-coupled phosphatidylinositol-calcium second messenger system. Alternative splicing results in multiple transcript variants encoding distinct isoforms; some of which may have distinct functions.

**Synonyms:**

GPRC1A; GRM1A; mGlu1; MGLUR1; MGLUR1A; SCAR13

**Protein Families:**

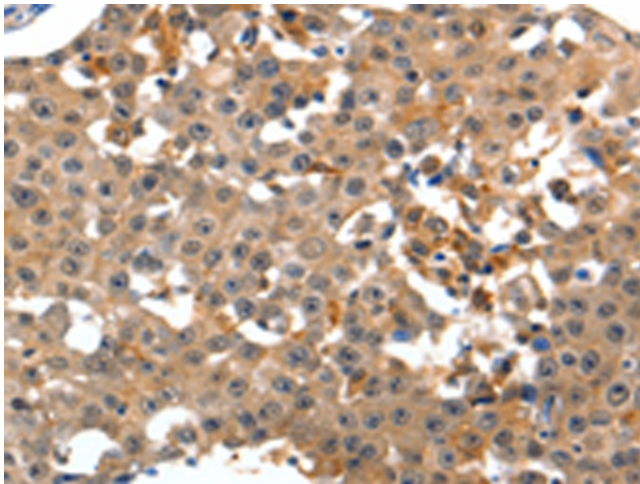
Druggable Genome, GPCR, Transmembrane

**Protein Pathways:**

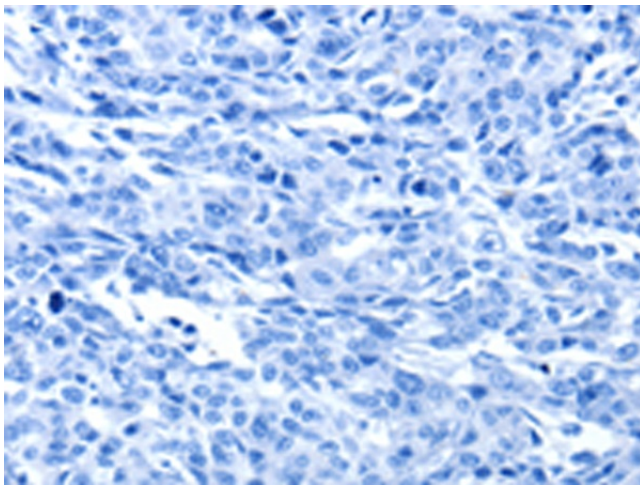
Calcium signaling pathway, Gap junction, Long-term depression, Long-term potentiation, Neuroactive ligand-receptor interaction

**Product images:**

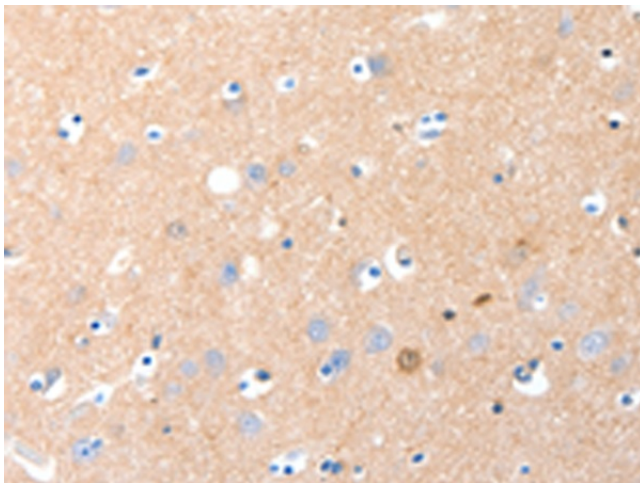
Gel: 8%SDS-PAGE  
Lysate: 60 µg  
Lane: Human brain  
Primary antibody: TA321217 (GRM1 Antibody) at dilution 1/125  
Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution  
Exposure time: 1 minute



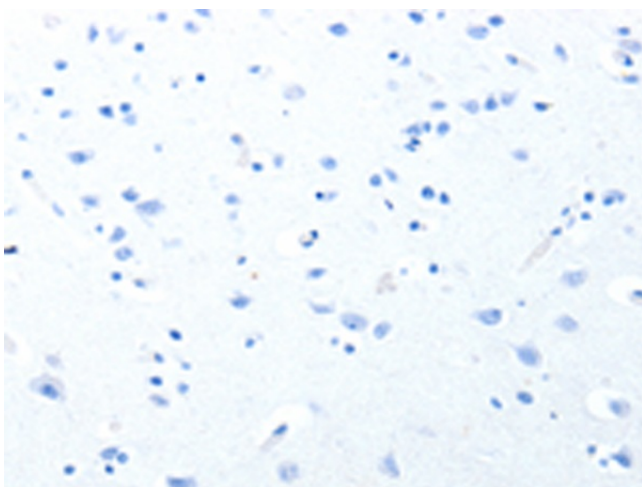
Immunohistochemistry of paraffin-embedded Human breast cancer tissue using TA321217 (GRM1 Antibody) at dilution 1/15 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human breast cancer tissue using TA321217 (GRM1 Antibody) at dilution 1/15, treated with synthetic peptide. (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human brain tissue using TA321217 (GRM1 Antibody) at dilution 1/15 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human brain tissue using TA321217 (GRM1 Antibody) at dilution 1/15, treated with synthetic peptide. (Original magnification: ×200)