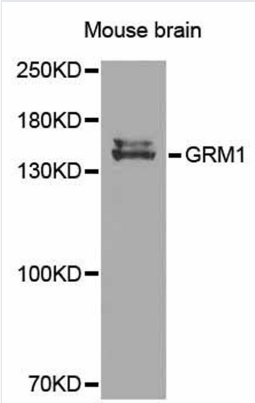
GRM1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GRM1, Polyclonal Antibody
Full Product Name	GRM1 Polyclonal Antibody
Product Gene Name	anti-GRM1 antibody
Product Synonym Names	GRM1A; mGlu1; GPRC1A; MGLUR1; SCAR13; MGLUR1A
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Affinity Purification
Concentration	1mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C (regular) or -80 degree C (long term). Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Molecular Weight	1194
OMIM	gene 614831
3D Structure	ModBase 3D Structure for Q13255
Species	Human
Route	Synthetic Peptide
Immunogen	A synthetic peptide of human GRM1
Calculated Molecular Weight	132kDa
Product Categories/Family for anti-GRM1 antibody	Polyclonal
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GRM1 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-GRM1 antibody	WB: 1:500 - 1:2000 IHC: 1:50 - 1:100
Related Product Information for anti-GRM1 antibody	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.
Other Notes	Small volumes of anti-GRM1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for GRM1 purchase	MBS128107 is an antibody targeting GRM1. Also known as GRM1 Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-GRM1 antibody
Western blot analysis of extracts of mouse brain, using GRM1 antibody at 1:500 dilution.Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (MBS128200) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% nonfat dry milk in TBST.Detection: ECL Basic Kit.Exposure time: 90s.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GRM1. It may not necessarily be applicable to this product.

NCBI GI #	311033443
NCBI GeneID	2911
NCBI Accession #	Q13255.3
UniProt Primary Accession #	Q13255
UniProt Secondary Accession #	Q13256; Q14757; Q14758; Q5VTF7; Q5VTF8; Q9NU10; Q9UGS9; Q9UGT0; B9EG79; F8W805
UniProt Related Accession #	Q13255
NCBI Official Full Name	Metabotropic glutamate receptor 1
NCBI Official Synonym Full Names	glutamate receptor, metabotropic 1
NCBI Official Symbol	GRM1
NCBI Official Synonym Symbols	MGLU1; GPRC1A; MGLUR1; SCAR13; PPP1R85
UniProt Protein Name	Metabotropic glutamate receptor 1
Protein Family	Metabotropic glutamate receptor
UniProt Gene Name	GRM1
UniProt Synonym Gene Names	GPRC1A; MGLUR1; mGluR1
UniProt Entry Name	GRM1_HUMAN
NCBI Protein Information	metabotropic glutamate receptor 1; protein phosphatase 1, regulatory subunit 85
NCBI Summary for GRM1	This gene encodes a metabotropic glutamate receptor that functions by activating phospholipase C. 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 canonical alpha isoform of the encoded protein is a disulfide-linked homodimer whose activity is mediated by a G-protein-coupled phosphatidylinositol-calcium second messenger system. This gene may be associated with many disease states, including schizophrenia, bipolar disorder, depression, and breast cancer. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, May 2013]

UniProt Comments for GRM1	mGluR1: Receptor for glutamate. The activity of this receptor is mediated by a G-protein that activates a phosphatidylinositol- calcium second messenger system. May participate in the central action of glutamate in the CNS, such as long-term potentiation in the hippocampus and long-term depression in the cerebellum. Homodimer; disulfide-linked. The PPXXF motif binds HOMER1, HOMER2 and HOMER3. Interacts with SIAH1, RYR1, RYR2, ITPR1, SHANK1, SHANK3 and GRASP. Belongs to the G-protein coupled receptor 3 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Receptor, GPCR; GPCR, family 3; Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: 6q24 Cellular Component: integral to plasma membrane; postsynaptic density; dendrite; plasma membrane; nucleus Molecular Function: G-protein coupled receptor activity; protein binding; glutamate receptor activity Biological Process: G-protein coupled receptor protein signaling pathway; synaptic transmission; elevation of cytosolic calcium ion concentration during G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); regulation of synaptic transmission, glutamatergic; activation of MAPKK activity; activation of MAPK activity; protein kinase C activation; metabotropic glutamate receptor signaling pathway; locomotory behavior; regulation of sensory perception of pain; sensory perception of pain Disease: Spinocerebellar Ataxia, Autosomal Recessive 13
Research Articles on GRM1	**1.** Results suggest a role for mGluR1 in breast cancer as a pro-angiogenic factor as well as a mediator of tumor progression.
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