

Rabbit mGluR1/GRM1 Polyclonal Antibody | anti-GRM1 antibody

Anti-mGluR1/GRM1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19269	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA

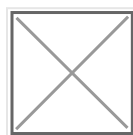
PRODUCT SYNONYMS

mGluR1/GRM1; Polyclonal Antibody; Anti-mGluR1/GRM1 Antibody; Metabotropic glutamate receptor 1; mGluR1; GRM1; GPRC1A; MGLUR1; glutamate metabotropic receptor 1; anti-GRM1 antibody

PRODUCT SPECIFICATIONS

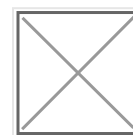
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for mGluR1/GRM1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-GRM1 antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Human, Mouse, Rat IHC-P: 0.5-1ug/ml Human, Rat FC/FACS/FCM: 1-3ug/1x106 cells Human, Mouse Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human mGluR1/GRM1 recombinant protein (Position: R25-E466).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

Figure 6. IHC analysis of Integrin beta 4/ITGB4 using anti-Integrin beta 4/ITGB4 antibody (AAA19269). Integrin beta 4/ITGB4 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Integrin beta 4/ITGB4 Antibody (AAA19269) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



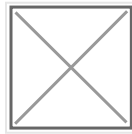
FCM (Flow Cytometry)

Figure 5. Flow Cytometry analysis of Neuro-2a cells using anti-mGluR1/GRM1 antibody (AAA19269). Overlay histogram showing Neuro-2a cells stained with AAA19269 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-mGluR1/GRM1 Antibody (AAA19269, 1µg/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



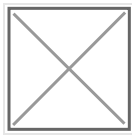
FCM (Flow Cytometry)

Figure 4. Flow Cytometry analysis of U2OS cells using anti-mGluR1/GRM1 antibody (AAA19269).Overlay histogram showing U2OS cells stained with AAA19269 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-mGluR1/GRM1 Antibody (AAA19269,1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Integrin beta 4/ITGB4 using anti-Integrin beta 4/ITGB4 antibody (AAA19269).Integrin beta 4/ITGB4 was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-Integrin beta 4/ITGB4 Antibody (AAA19269) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



FCM (Flow Cytometry)

Figure 3. Flow Cytometry analysis of A431 cells using anti-mGluR1/GRM1 antibody (AAA19269).Overlay histogram showing A431 cells stained with AAA19269 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-mGluR1/GRM1 Antibody (AAA19269,1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of mGluR1/GRM1 using anti-mGluR1/GRM1 antibody (AAA19269).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human placenta tissue lysatesLane 2: human Hela whole cell lysatesLane 3: human A431 whole cell lysatesLane 4: human A549 whole cell lysatesLane 5: human K562 whole cell lysatesLane 6: rat brain tissue lysatesLane 7: mouse brain tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-mGluR1/GRM1 antigen affinity purified polyclonal antibody (Catalog # AAA19269) at 0. 25 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for mGluR1/GRM1 at approximately 132KD. The expected band size for mGluR1/GRM1 is at 132KD.

ADDITIONAL INFORMATION

Related Product Information for anti-GRM1 antibody	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.
References	1. Ganesh, S., Amano, K., Yamakawa, K. Assignment of the gene GRM1 coding for metabotropic glutamate receptor 1 to human chromosome band 6q24 by in situ hybridization. Cytogenet. Cell Genet. 88: 314-315, 2000. 2. Ortiz, P., Vanaclocha, F., Lopez-Bran, E., Esquivias, J. I., Lopez-Estebarez, J. L., Martin-Gonzalez, M., Arrue, I., Garcia-Romero, D., Ochoa, C., Gonzalez-Perez, A., Ruiz, A., Real, L. M. Genetic analysis of the GRM1 gene in human melanoma susceptibility. Europ. J. Hum. Genet. 15: 1176-1182, 2007. 3. Sachs, A. J., Schwendinger, J. K., Yang, A. W., Haider, N. B., Nystuen, A. M. The mouse mutants recoil wobbler and nmf373 represent a series of Grm1 mutations. Mammalian Genome 18: 749-756, 2007.

NCBI AND UNIPROT INFORMATION

NCBI GI #	311033443
NCBI GeneID	2911
UniProt Accession #	Q13255; Q13256; Q14757; Q14758; Q5VTF7; Q5VTF8; Q9NU10; Q9UGS9; Q9UGT0; B9EG79; F8W805
Molecular Weight	1194
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
NCBI Protein Information	metabotropic glutamate receptor 1; protein phosphatase 1, regulatory subunit 85
UniProt Protein Name	Metabotropic glutamate receptor 1
UniProt Gene Name	GRM1
UniProt Synonym Gene Names	GPRC1A; MGLUR1; mGluR1
UniProt Entry Name	GRM1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mglur1-grm1-antibody-western-blot-immunohistochemistry-flow-cytometry-direct-elisa-elisa/19269>