

Rabbit GRID2 Polyclonal Antibody | anti-GRID2 antibody

Anti-GRID2 Antibody

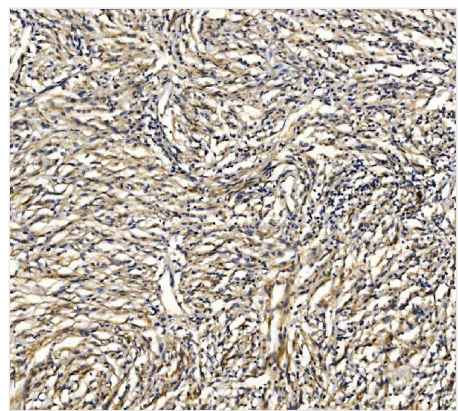
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125746	Rabbit	Human, Mouse, Rat	Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GRID2; Polyclonal Antibody; Anti-GRID2 Antibody; GLURD2; Glutamate receptor ionotropic; delta-2; GluD2; GluR delta-2 subunit; glutamate ionotropic receptor delta type subunit 2; anti-GRID2 antibody

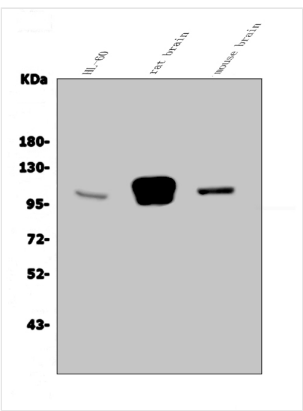
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for GRID2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-GRID2 antibody	FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human GRID2 (KKDDEVFRTAVGDLNQN).
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.



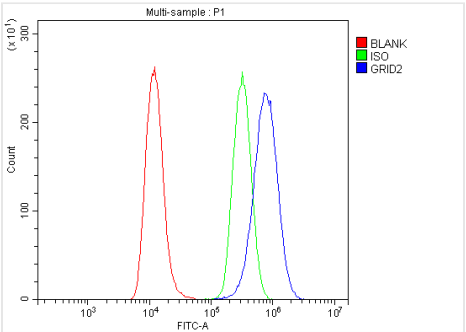
IHC (Immunohistochemistry)

Figure 4. IHC analysis of GRID2 using anti-GRID2 antibody (AAA125746).GRID2 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 2μg/ml rabbit anti-GRID2 Antibody (AAA125746) 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) with DAB as the chromogen.



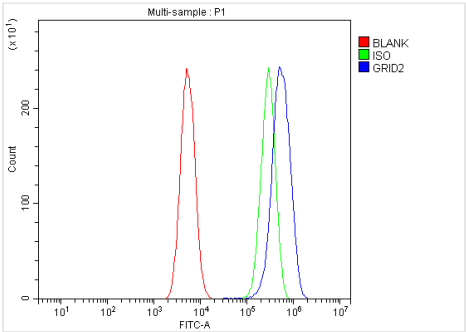
WB (Western Blot)

Figure 1. Western blot analysis of GRID2 using anti-GRID2 antibody (A00410-3).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 HL-60 whole cell lysatesLane 2: rat brain tissue lysatesLane 3: 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-GRID2 antigen affinity purified polyclonal antibody at 0. 5 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 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GRID2 at approximately 113KD. The expected band size for GRID2 is at 113KD.



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of U2OS cells using anti-GRID2 antibody (AAA125746).Overlay histogram showing U2OS cells stained with AAA125746 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRID2 Antibody (AAA125746, 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.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of C6 cells using anti-GRID2 antibody (AAA125746).Overlay histogram showing C6 cells stained with AAA125746 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRID2 Antibody (AAA125746, 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.

ADDITIONAL INFORMATION

Related Product Information for anti-GRID2 antibody

Glutamate receptor, ionotropic, delta 2, also known as GluD2, GluRdelta2, or delta2, is a protein that in humans is encoded by the GRID2 gene. The protein encoded by this gene is a member of the family of ionotropic glutamate receptors which are the predominant excitatory neurotransmitter receptors in the mammalian brain. The encoded protein is a multi-pass membrane protein that is expressed selectively in cerebellar Purkinje cells. A point mutation in the mouse ortholog, associated with the phenotype named 'lurcher', in the heterozygous state leads to ataxia resulting from selective, cell-autonomous apoptosis of cerebellar Purkinje cells during postnatal development. Mice homozygous for this mutation die shortly after birth from massive loss of mid- and hindbrain neurons during late embryogenesis. This protein also plays a role in synapse organization between parallel fibers and Purkinje cells. Alternate splicing results in multiple transcript variants encoding distinct isoforms. Mutations in this gene cause cerebellar ataxia in humans.

References	1. Araki, K., Meguro, H., Kushiya, E., Takayama, C., Inoue, Y., Mishina, M. Selective expression of the glutamate receptor channel delta-2 subunit in cerebellar Purkinje cells. <i>Biochem. Biophys. Res. Commun.</i> 197: 1267-1276, 1993. 2. Hills, L. B., Masri, A., Konno, K., Kakegawa, W., Lam, A. -T. N., Lim-Melia, E., Chandy, N., Hill, R. S., Partlow, J. N., Al-Saffar, M., Nasir, R., Stoler, J. M., Barkovich, A. J., Watanabe, M., Yuzaki, M., Mochida, G. H. Deletions in GRID2 lead to a recessive syndrome of cerebellar ataxia and tonic upgaze in humans. <i>Neurology</i> 81: 1378-1386, 2013. 3. Hirai, H., Launey, T., Mikawa, S., Torashima, T., Yanagihara, D., Kasaura, T., Miyamoto, A., Yuzaki, M. New role of delta-2-glutamate receptors in AMPA receptor trafficking and cerebellar function. <i>Nature Neurosci.</i> 6: 869-876, 2003.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	157384977
NCBI GeneID	2895
NCBI Accession #	NP_001501.2
NCBI GenBank Nucleotide #	NM_001510.2
UniProt Accession #	O43424; Q4KKU9; Q4KKV0; Q59FZ1
Molecular Weight	113,356 Da
NCBI Official Full Name	glutamate receptor ionotropic, delta-2
NCBI Official Synonym Full Names	glutamate receptor, ionotropic, delta 2
NCBI Official Symbol	GRID2
NCBI Official Synonym Symbols	GluD2
NCBI Protein Information	glutamate receptor ionotropic, delta-2; GluR-delta-2; gluD2 subunit; glutamate receptor delta-2 subunit
UniProt Protein Name	Glutamate receptor ionotropic, delta-2
UniProt Gene Name	GRID2
UniProt Synonym Gene Names	GLURD2; GluD2
UniProt Entry Name	GRID2_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.