Rabbit GABA A Receptor gamma 2/GABRG2 Polyclonal Antibody | anti-GABRG2 antibody

Anti-GABA A Receptor gamma 2/GABRG2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125651	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot**

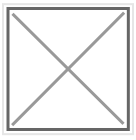
PRODUCT SYNONYMS

GABA A Receptor gamma 2/GABRG2; Polyclonal Antibody; Anti-GABA A Receptor gamma 2/GABRG2 Antibody; GABRG2; Gamma-aminobutyric acid receptor subunit gamma-2; GABA(A receptor subunit gamma-2; gamma-aminobutyric acid type A receptor subunit gamma2; anti-GABRG2 antibody

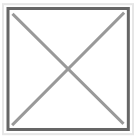
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for GABA A Receptor gamma 2/GABRG2 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-GABRG2 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human GABA A Receptor gamma 2/GABRG2 recombinant protein (Position: Q40-R446).
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



FCM/FACS (Flow Cytometry)
Figure 3. Flow Cytometry analysis of THP-1 cells using anti-GABA A Receptor gamma 2/GABRG2 antibody (AAA125651).Overlay histogram showing THP-1 cells stained with AAA125651 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GABA A Receptor gamma 2/GABRG2 Antibody (AAA125651, 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 (Immunohiostchemistry)
Figure 2. IHC analysis of GABA A Receptor gamma 2/GABRG2 using anti-GABA A Receptor gamma 2/GABRG2 antibody (AAA125651).GABA A Receptor gamma 2/GABRG2 was detected in paraffin-embedded section of mouse 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 2μg/ml rabbit anti-GABA A Receptor gamma 2/GABRG2 Antibody (AAA125651) 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 Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

WB (Western Blot)

Figure 1. Western blot analysis of GABA A Receptor gamma 2/GABRG2 using anti-GABA A Receptor gamma 2/GABRG2 antibody (AAA125651).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: rat brain tissue lysatesLane 2: rat 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-GABA A Receptor gamma 2/GABRG2 antigen affinity purified polyclonal antibody (Catalog # AAA125651) 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 GABA A Receptor gamma 2/GABRG2 at approximately 50KD. The expected band size for GABA A Receptor gamma 2/GABRG2 is at 50KD.

ADDITIONAL INFORMATION

Related Product Information for anti-GABRG2 antibody	Gamma-aminobutyric acid receptor subunit gamma-2 is a protein that in humans is encoded by the GABRG2 gene. This gene encodes a gamma-aminobutyric acid (GABA) receptor. GABA is the major inhibitory neurotransmitter in the mammlian brain, where it acts at GABA-A receptors, which are ligand-gated chloride channels. GABA-A receptors are pentameric, consisting of proteins from several subunit classes: alpha, beta, gamma, delta and rho. Mutations in this gene have been associated with epilepsy and febrile seizures. Multiple transcript variants encoding different isoforms have been identified for this gene.
References	1. Audenaert, D., Schwartz, E., Claeys, K. G., Claes, L., Deprez, L., Suls, A., Van Dyck, T., Lagae, L., Van Broeckhoven, C., Macdonald, R. L., De Jonghe, P. A novel GABRG2 mutation associated with febrile seizures. Neurology 67: 687-690, 2006. 2. Baulac, S., Huberfeld, G., Gourfinkel-An, I., Mitropoulou, G., Beranger, A., Prud'homme, J. -F., Baulac, M., Brice, A., Bruzzone, R., LeGuern, E. First genetic evidence of GABA(A) receptor dysfunction in epilepsy: a mutation in the gamma-2-subunit gene. Nature Genet. 28: 46-48, 2001. 3. Buckwalter, M. S., Lossie, A. C., Scarlett, L. M., Camper, S. A. Localization of the human chromosome 5q genes Gabra-1, Gabrg-2, I1-4, I1-5, and Irf-1 on mouse chromosome 11. Mammalian Genome 3: 604-607, 1992.

NCBI AND UNIPROT INFORMATION

NCBI GI #	116242488
NCBI GeneID	2566
UniProt Accession #	P18507; Q6GRL6; Q6PCC3; Q9UDB3; Q9UN15; F5HB82
Molecular Weight	467
NCBI Official Full Name	Gamma-aminobutyric acid receptor subunit gamma-2
NCBI Official Synonym Full Names	gamma-aminobutyric acid (GABA) A receptor, gamma 2
NCBI Official Symbol	GABRG2
NCBI Official Synonym Symbols	CAE2; ECA2; GEFSP3
NCBI Protein Information	gamma-aminobutyric acid receptor subunit gamma-2; GABA(A) receptor, gamma 2; GABA(A) receptor subunit gamma-2
UniProt Protein Name	Gamma-aminobutyric acid receptor subunit gamma-2
UniProt Gene Name	**GABRG2**
UniProt Entry Name	GBRG2_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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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