10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GABA A Receptor Alpha 1 Antibody

Catalog # ABO10892

Specification

Anti-GABA A Receptor Alpha 1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P14867
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Gamma-aminobutyric acid receptor subunit alpha-1(GABRA1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-GABA A Receptor Alpha 1 Antibody - Additional Information

Gene ID 2554

Other Names
Gamma-aminobutyric acid receptor subunit alpha-1, GABA(A) receptor subunit alpha-1, GABRA1

Calculated MW
51802 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein.

Protein Name
Gamma-aminobutyric acid receptor subunit alpha-1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human GABA A Receptor alpha 1(440-456aa ATYLNREPQLKAPTPHQ), identical to the related rat and mouse sequences.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage **At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the ligand-gated ion channel (TC 1.A.9) family. Gamma-aminobutyric acid receptor (TC 1.A.9.5) subfamily. GABRA1 sub-subfamily.

Anti-GABA A Receptor Alpha 1 Antibody - Protein Information

Name GABRA1

Function
Ligand-gated chloride channel which is a component of the heteropentameric receptor for GABA, the major inhibitory neurotransmitter in the brain (PubMed:23909897, PubMed:25489750, PubMed:29950725). Plays an important role in the formation of functional inhibitory GABAergic synapses in addition to mediating synaptic inhibition as a GABA-gated ion channel (PubMed:23909897, PubMed:25489750). The gamma2 subunit is necessary but not sufficient for a rapid formation of active synaptic contacts and the synaptogenic effect of this subunit is influenced by the type of alpha and beta subunits present in the receptor pentamer (By similarity). The alpha1/beta2/gamma2 receptor and the alpha1/beta3/gamma2 receptor exhibit synaptogenic activity (PubMed:23909897, PubMed:25489750). GABRA1-mediated plasticity in the orbitofrontal cortex regulates context-dependent action selection (By similarity). Functions also as histamine receptor and mediates cellular responses to histamine (By similarity).

Cellular Location
Postsynaptic cell membrane {ECO:0000250|UniProtKB:P08219}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P62813}

Anti-GABA A Receptor Alpha 1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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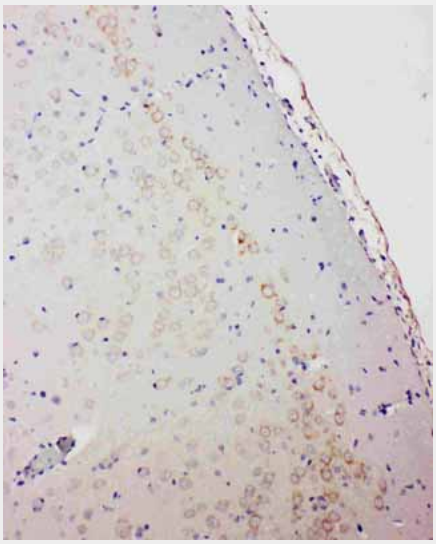
Anti-GABA A Receptor Alpha 1 Antibody - Images

Anti-GABA A Receptor alpha 1 antibody, ABO10892, Western blottingLane 1: Rat Brain Tissue LysateLane 2: Rat Brain Tissue Lysate



Anti-GABA A Receptor alpha 1 antibody, ABO10892, IHC(P)IHC(P): Rat Brain Tissue

Anti-GABA A Receptor Alpha 1 Antibody - Background

GABRA1, Gamma-aminobutyric acid receptor subunit alpha-1, is a protein that in humans is encoded by the GABRA1 gene. The 1,055-bp GABRA1 clone contained an open reading frame and 260 nucleotides in the 5-prime noncoding region. The 351-amino acid sequence shows 97% homology with its bovine counterpart. GABA is the major inhibitory neurotransmitter in the mammalian brain where it acts at GABA-A receptors, which are ligand-gated chloride channels. Chloride conductance of these channels can be modulated by agents such as benzodiazepines that bind to the GABA-A receptor. At least 16 distinct subunits of GABA-A receptors have been identified.