

Anti-5HT1A Receptor Antibody
Catalog # ABO10962

Specification

Anti-5HT1A Receptor Antibody - Product Information

Application	WB, IHC
Primary Accession	P08908
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for 5-hydroxytryptamine receptor 1A(HTR1A) 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-5HT1A Receptor Antibody - Additional Information

Gene ID 3350

Other Names

5-hydroxytryptamine receptor 1A, 5-HT-1A, 5-HT1A, G-21, Serotonin receptor 1A, HTR1A, ADRB2RL1, ADRBRL1

Calculated MW

46107 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 membrane ; Multi-pass membrane protein .

Tissue Specificity

Detected in lymph nodes, thymus and spleen. Detected in activated T-cells, but not in resting T-cells. .

Protein Name

5-hydroxytryptamine receptor 1A(5-HT-1A/5-HT1A)

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 5HT1A Receptor(404-422aa NKDFQNAFKKIIKCKFCRQ), different from the related rat and mouse

sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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.

Anti-5HT1A Receptor Antibody - Protein Information

Name HTR1A ([HGNC:5286](#))

Synonyms ADRB2RL1, ADRBRL1

Function

G-protein coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:[22957663](http://www.uniprot.org/citations/22957663), PubMed:[3138543](http://www.uniprot.org/citations/3138543), PubMed:[33762731](http://www.uniprot.org/citations/33762731), PubMed:[37935376](http://www.uniprot.org/citations/37935376), PubMed:[37935377](http://www.uniprot.org/citations/37935377), PubMed:[8138923](http://www.uniprot.org/citations/8138923), PubMed:[8393041](http://www.uniprot.org/citations/8393041)). Also functions as a receptor for various drugs and psychoactive substances (PubMed:[22957663](http://www.uniprot.org/citations/22957663), PubMed:[3138543](http://www.uniprot.org/citations/3138543), PubMed:[33762731](http://www.uniprot.org/citations/33762731), PubMed:[38552625](http://www.uniprot.org/citations/38552625), PubMed:[8138923](http://www.uniprot.org/citations/8138923), PubMed:[8393041](http://www.uniprot.org/citations/8393041)). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed:[22957663](http://www.uniprot.org/citations/22957663), PubMed:[3138543](http://www.uniprot.org/citations/3138543), PubMed:[33762731](http://www.uniprot.org/citations/33762731), PubMed:[8138923](http://www.uniprot.org/citations/8138923), PubMed:[8393041](http://www.uniprot.org/citations/8393041)). HTR1A is coupled to G(i)/G(o) G alpha proteins and mediates inhibitory neurotransmission: signaling inhibits adenylate cyclase activity and activates a phosphatidylinositol-calcium second messenger system that regulates the release of Ca(2+) ions from intracellular stores (PubMed:[33762731](http://www.uniprot.org/citations/33762731), PubMed:[35610220](http://www.uniprot.org/citations/35610220)). Beta-arrestin family members regulate signaling by mediating both receptor desensitization and resensitization processes (PubMed:[18476671](http://www.uniprot.org/citations/18476671), PubMed:[20363322](http://www.uniprot.org/citations/20363322), PubMed:[20945968](http://www.uniprot.org/citations/20945968)). Plays a role in the regulation of 5- hydroxytryptamine release and in the regulation of dopamine and 5- hydroxytryptamine metabolism (PubMed:[18476671](http://www.uniprot.org/citations/18476671), PubMed:[20363322](http://www.uniprot.org/citations/20363322), PubMed:[20363322](http://www.uniprot.org/citations/20363322)).

<http://www.uniprot.org/citations/20945968> target="_blank">20945968). Plays a role in the regulation of dopamine and 5- hydroxytryptamine levels in the brain, and thereby affects neural activity, mood and behavior (PubMed:18476671, PubMed:20363322, PubMed:20945968). Plays a role in the response to angiogenic stimuli (PubMed:18476671, PubMed:20363322, PubMed:20945968).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell projection, dendrite
{ECO:0000250|UniProtKB:P19327}

Tissue Location

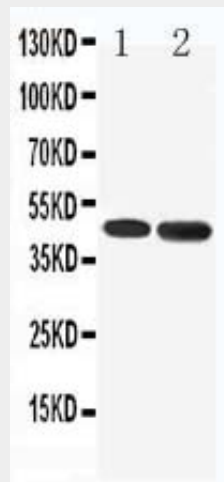
Detected in lymph nodes, thymus and spleen. Detected in activated T-cells, but not in resting T-cells

Anti-5HT1A Receptor Antibody - Protocols

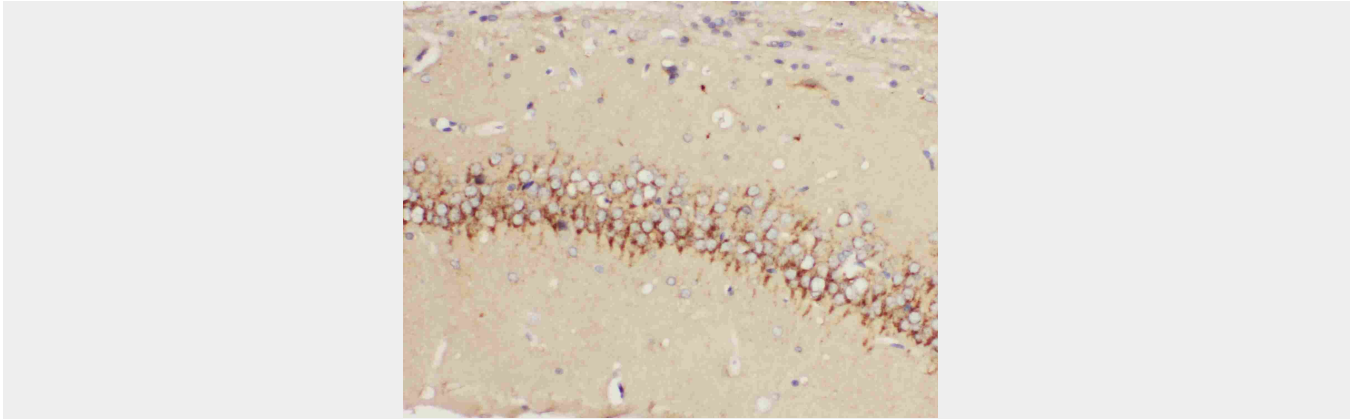
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-5HT1A Receptor Antibody - Images



Anti-5HT1A Receptor antibody, ABO10962, Western blotting Lane 1: Rat Brain Tissue Lysate
Lane 2: Human U87 Cell Lysate



Anti-5HT1A Receptor antibody, ABO10962, IHC(P)IHC(P): Rat Brain Tissue

Anti-5HT1A Receptor Antibody - Background

HTR1A(5-HYDROXYTRYPTAMINE RECEPTOR 1A), also called SEROTONIN 5-HT-1A RECEPTOR or BETA-2-ADRENERGIC RECEPTOR-LIKE PROTEIN G-21, is a subtype of 5-HT receptor that binds the endogenous neurotransmitter serotonin. It is a G protein-coupled receptor(GPCR) that is coupled to Gi/Go and mediates inhibitory neurotransmission. HTR1A denotes the human gene encoding for the receptor. The HTR1A gene is located at 5q12.3. The decreases in 5-HT-1A receptor densities correlated with decreased glucose utilization as measured by PET scan. Activation of 5-HT-1A receptors has been demonstrated to impair cognition, learning, and memory by inhibiting the release of glutamate and acetylcholine in various areas of the brain. 5-HT-1A receptors in the dorsal raphe nucleus are co-localized with neurokinin 1(NK1) receptors and have been shown to inhibit the release of substance P, their endogenous ligand.