

**Anti-5HT2A Receptor Picoband Antibody**  
Catalog # ABO12285

**Specification**

**Anti-5HT2A Receptor Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P28223</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for 5-hydroxytryptamine receptor 2A(HTR2A) detection. Tested with WB in Human;Rat.<br>

**Reconstitution**

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

**Anti-5HT2A Receptor Picoband Antibody - Additional Information**

**Gene ID** 3356

**Other Names**

5-hydroxytryptamine receptor 2A, 5-HT-2, 5-HT-2A, Serotonin receptor 2A, HTR2A, HTR2

**Calculated MW**

52603 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cell membrane; Multi-pass membrane protein. Cell projection, dendrite . Cell projection, axon . Cytoplasmic vesicle . Membrane, caveola . Localizes to the postsynaptic thickening of axo-dendritic synapses. .

**Tissue Specificity**

Detected in brain cortex (at protein level). Detected in blood platelets. .

**Protein Name**

5-hydroxytryptamine receptor 2A

**Contents**

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

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human 5HT2A Receptor (400-431aa KENKKPLQLILVNTIPALAYKSSQLQMGQKKN) , different from the related mouse sequence by three amino acids, and from the related rat sequence by two amino acids.

**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.**

**Sequence Similarities**

Belongs to the G-protein coupled receptor 1 family.

**Anti-5HT2A Receptor Picoband Antibody - Protein Information**

**Name** HTR2A ([HGNC:5293](#))

**Synonyms** HTR2

**Function**

G-protein coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed: [1330647](http://www.uniprot.org/citations/1330647), PubMed: [18703043](http://www.uniprot.org/citations/18703043), PubMed: [19057895](http://www.uniprot.org/citations/19057895), PubMed: [21645528](http://www.uniprot.org/citations/21645528), PubMed: [22300836](http://www.uniprot.org/citations/22300836), PubMed: [35084960](http://www.uniprot.org/citations/35084960), PubMed: [38552625](http://www.uniprot.org/citations/38552625)). Also functions as a receptor for various drugs and psychoactive substances, including mescaline, psilocybin, 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI) and lysergic acid diethylamide (LSD) (PubMed: [28129538](http://www.uniprot.org/citations/28129538), PubMed: [35084960](http://www.uniprot.org/citations/35084960)). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors (PubMed: [28129538](http://www.uniprot.org/citations/28129538), PubMed: [35084960](http://www.uniprot.org/citations/35084960)). HTR2A is coupled to G(q)/G(11) G alpha proteins and activates phospholipase C-beta, releasing diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) second messengers that modulate the activity of phosphatidylinositol 3-kinase and promote the release of Ca(2+) ions from intracellular stores, respectively (PubMed: [18703043](http://www.uniprot.org/citations/18703043), PubMed: [28129538](http://www.uniprot.org/citations/28129538), PubMed: [35084960](http://www.uniprot.org/citations/35084960)). Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways (PubMed: [28129538](http://www.uniprot.org/citations/28129538), PubMed: [35084960](http://www.uniprot.org/citations/35084960)). Affects neural activity, perception, cognition and mood (PubMed: [18297054](http://www.uniprot.org/citations/18297054)). Plays a role in the regulation of behavior, including responses to anxiogenic situations and psychoactive substances. Plays a role in intestinal smooth muscle contraction, and may play a role in arterial vasoconstriction (By similarity).

**Cellular Location**

Cell membrane; Multi-pass membrane protein. Cell projection, dendrite

{ECO:0000250|UniProtKB:P35363}. Cell projection, axon {ECO:0000250|UniProtKB:P14842}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:P14842}. Membrane, caveola {ECO:0000250|UniProtKB:P14842}. Presynapse {ECO:0000250|UniProtKB:P14842}

#### Tissue Location

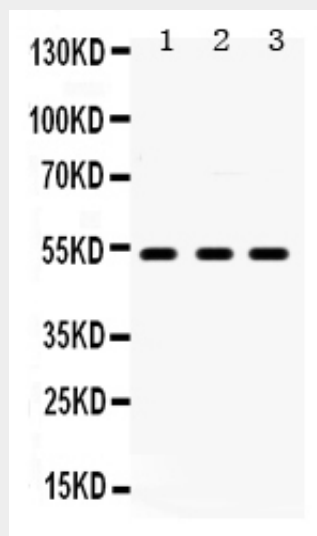
Detected in brain cortex (at protein level). Detected in blood platelets.

#### Anti-5HT2A Receptor Picoband 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-5HT2A Receptor Picoband Antibody - Images



Anti- 5HT2A Receptor Picoband antibody, ABO12285, Western blotting All lanes: Anti 5HT2A Receptor (ABO12285) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Rat Testis Tissue Lysate at 50ug Lane 3: U87 Whole Cell Lysate at 40ug Predicted bind size: 53KDObserved bind size: 53KD

#### Anti-5HT2A Receptor Picoband Antibody - Background

The mammalian HTR2A (5-HT2A receptor) is a subtype of the 5-HT2 receptor that belongs to the serotonin receptor family and is a G protein-coupled receptor (GPCR). This is the main excitatory receptor subtype among the GPCRs for serotonin (5-HT), although 5-HT2A may also have an inhibitory effect on certain areas such as the visual cortex and the orbit frontal cortex. This receptor was given importance first as the target of psychedelic drugs like LSD. Later it came back to prominence because it was also found to be mediating, at least partly, the action of many antipsychotic drugs, especially the atypical ones. 5-HT2A also happens to be a necessary receptor for the spread of the human polyoma virus called JC virus. Sparkes et al. (1991) concluded that the

gene is located on 13q14-q21 in man and on chromosome 14 in the mouse.