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Anti-5HT2A Receptor Antibody

Catalog # ABO10698

Product Information

Application	WB, IHC-P
Primary Accession	P28223
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for 5-hydroxytryptamine receptor 2A(HTR2A) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
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. .
Source	Eukaryota
Protein Name	5-hydroxytryptamine receptor 2A(5-HT-2/5-HT-2A)
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 5HT2A Receptor(418-432aa AYKSSQLQMGQKKNS), different from the mouse sequence by one amino acid.
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 G-protein coupled receptor 1 family.

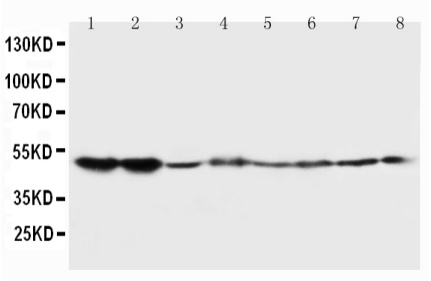
Protein Information

Name	HTR2A (HGNC:5293)
Synonyms	HTR2
Function	G protein-coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:1330647, PubMed:18703043, PubMed:19057895, PubMed:21645528, PubMed:22300836, PubMed:35084960, PubMed: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, PubMed: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, PubMed: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, PubMed:28129538, PubMed:35084960). Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways (PubMed:28129538, PubMed:35084960). Affects neural activity, perception, cognition and mood (PubMed: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.

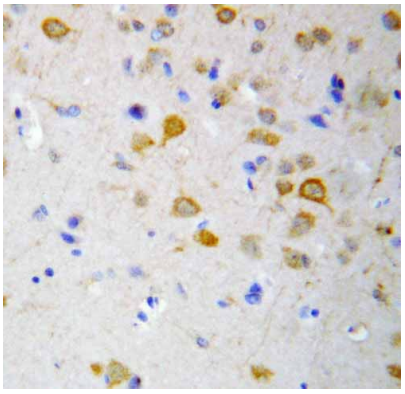
Background

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.

Images



Anti-5HT2A Receptor antibody, ABO10698, Western blottingLane 1: Rat Brain Tissue LysateLane 2: Rat Brain Tissue LysateLane 3: Mouse Brain Tissue LysateLane 4: Mouse Brain Tissue LysateLane 5: U87 Cell LysateLane 6: SMMC Cell LysateLane 7: HT1080 Cell LysateLane 8: COLO320 Cell Lysate



Anti-5HT2A Receptor antibody, ABO10698, IHC(P)IHC(P): Rat Brain Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.