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Anti-5HT2B Receptor Picoband Antibody

Catalog # ABO12286

Product Information

Application	WB
Primary Accession	P41595
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for 5-hydroxytryptamine receptor 2B(HTR2B) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3357
Other Names	5-hydroxytryptamine receptor 2B, 5-HT-2B, 5-HT2B, Serotonin receptor 2B, HTR2B
Calculated MW	54298
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Cell membrane; Multi-pass membrane protein. Cell junction, synapse, synaptosome .
Tissue Specificity	Ubiquitous. Detected in liver, kidney, heart, pulmonary artery, and intestine. Detected at lower levels in blood, placenta and brain, especially in cerebellum, occipital cortex and frontal cortex. .
Source	Eukaryota
Protein Name	5-hydroxytryptamine receptor 2B
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 5HT2B Receptor (446-478aa MRLRSSTIQSSSIILLDTLLLTENEGDKTEEQ V), different from the related mouse sequence by six amino acids, and from the related rat sequence by nine amino acids.
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	HTR2B (HGNC:5294)
Function	G protein-coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:18703043, PubMed:23519210, PubMed:7926008, PubMed:8078486, PubMed:8143856, PubMed:8882600). Also functions as a receptor for various ergot alkaloid derivatives and psychoactive substances (PubMed:12970106, PubMed:18703043, PubMed:23519210, PubMed:23519215, PubMed:24357322, PubMed:28129538, PubMed:30127358, PubMed:36087581, PubMed:7926008, PubMed:8078486, PubMed:8143856). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors (PubMed:23519215, PubMed:28129538, PubMed:8078486, PubMed:8143856, PubMed:8882600). HTR2B 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:23519215, PubMed:28129538, PubMed:30127358, PubMed:36087581, PubMed:8078486, PubMed:8143856, PubMed:8882600). Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways (PubMed:23519215, PubMed:28129538, PubMed:30127358, PubMed:36087581). Plays a role in the regulation of dopamine and 5-hydroxytryptamine release, 5-hydroxytryptamine uptake and in the regulation of extracellular dopamine and 5-hydroxytryptamine levels, and thereby affects neural activity. May play a role in the perception of pain (By similarity). Plays a role in the regulation of behavior, including impulsive behavior (PubMed:21179162). Required for normal proliferation of embryonic cardiac myocytes and normal heart development (By similarity). Protects cardiomyocytes against apoptosis (By similarity). Plays a role in the adaptation of pulmonary arteries to chronic hypoxia (By similarity). Plays a role in vasoconstriction (By similarity). Required for normal osteoblast function and proliferation, and for maintaining normal bone density (By similarity). Required for normal proliferation of the interstitial cells of Cajal in the intestine (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Synapse, synaptosome {ECO:0000250|UniProtKB:Q02152}
Tissue Location	Ubiquitous. Detected in liver, kidney, heart, pulmonary artery, and intestine. Detected at lower levels in blood, placenta and brain, especially in cerebellum, occipital cortex and frontal cortex.

Background

5HT2B Receptor is known as HTR2B. This gene encodes one of the several different receptors for 5-hydroxytryptamine (serotonin) that belongs to the G-protein coupled receptor 1 family. Serotonin is a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. Serotonin receptors

mediate many of the central and peripheral physiologic functions of serotonin, including regulation of cardiovascular functions and impulsive behavior. Population and family-based analyses of a minor allele (glutamine-to-stop substitution, designated Q20*) which blocks expression of this protein, and knockout studies in mice, suggest a role for this gene in impulsivity. However, other factors, such as elevated testosterone levels, may also be involved.

Images



Anti- 5HT2B Receptor Picoband antibody, ABO12286, Western blottingAll lanes: Anti 5HT2B Receptor (ABO12286) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: U87 Whole Cell Lysate at 40ugPredicted bind size: 54KDObserved bind size: 54KD

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