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HTR2B Antibody (C-term E423)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11124a

Product Information

Application	WB, IHC-P, E
Primary Accession	P41595
Other Accession	NP_000858.3
Reactivity	Human, Rat, Mouse
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54298
Antigen Region	408-435

Additional Information

Gene ID	3357
Other Names	5-hydroxytryptamine receptor 2B, 5-HT-2B, 5-HT2B, Serotonin receptor 2B, HTR2B
Target/Specificity	This HTR2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 408-435 amino acids from the C-terminal region of human HTR2B.
Dilution	WB~~1:2000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HTR2B Antibody (C-term E423) is for research use only and not for use in diagnostic or therapeutic procedures.

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

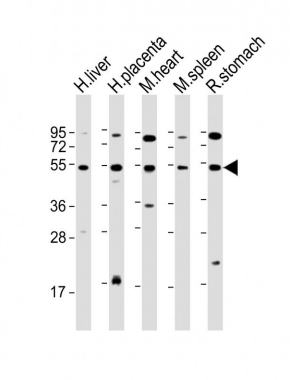
Multiple receptor subtypes of serotonin neurotransmitters with multiple physiologic functions have been recognized. The 5-HT-2 receptors mediate many of the central and peripheral physiologic functions of serotonin. Cardiovascular effects include contraction of blood vessels and shape changes in platelets; central nervous system effects include neuronal sensitization to tactile stimuli and mediation of hallucinogenic effects of phenylisopropylamine hallucinogens.

References

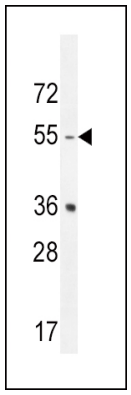
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Roberts, K.E., et al. Gastroenterology 139(1):130-139(2010) Svejda, B., et al. Cancer 116(12):2902-2912(2010) Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009) Tabakoff, B., et al. BMC Biol. 7, 70 (2009) :

Images

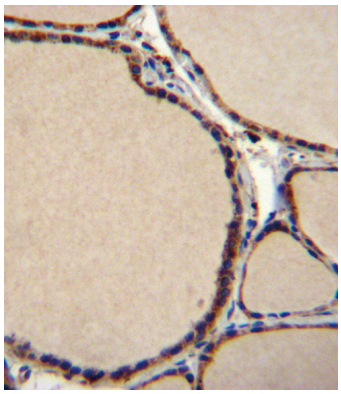
All lanes : Anti-HTR2B Antibody (C-term E423) at 1:2000 dilution Lane 1: human liver lysate Lane 2: human



placenta lysate Lane 3: mouse heart lysate Lane 4: mouse spleen lysate Lane 5: rat stomach lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



HTR2B Antibody (C-term E423) (Cat. #AP11124a) western blot analysis in mouse spleen tissue lysates (35ug/lane).This demonstrates the HTR2B antibody detected the HTR2B protein (arrow).



HTR2B Antibody (C-term E423) (Cat. #AP11124a)immunohistochemistry analysis in formalin fixed and paraffin embedded human thyroid tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of HTR2B Antibody (C-term E423) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Chronic restraint stress reduces carbon tetrachloride-induced liver fibrosis.

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