10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-5-HT2B Antibody

Rabbit polyclonal antibody to 5-HT2B
Catalog # AP59584

Product Information

Application	WB, IP
Primary Accession	P41595
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54298

Additional Information

Gene ID	3357
Other Names	5-hydroxytryptamine receptor 2B; 5-HT-2B; 5-HT2B; Serotonin receptor 2B
Target/Specificity	Recognizes endogenous levels of 5-HT2B protein.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IP~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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}

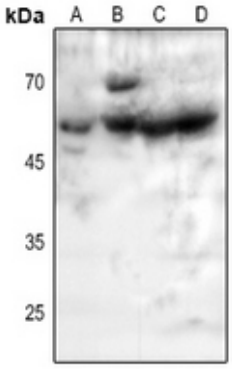
Tissue Location

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

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human 5-HT2B. The exact sequence is proprietary.

Images



Western blot analysis of 5-HT2B expression in Hela (A), rat liver (B), rat heart (C), rat kidney (D) whole cell lysates.