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Htr2a Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21295a

Product Information

Application	WB, IHC-P, E
Primary Accession	P35363
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52772
Calculated MW	52842

Additional Information

Gene ID	15558
Other Names	5-hydroxytryptamine receptor 2A, 5-HT-2, 5-HT-2A, Serotonin receptor 2A, Htr2a, Htr2
Target/Specificity	This Htr2a antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 16-30 amino acids from the N-terminal region of human Htr2a.
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	Htr2a Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Htr2a
Synonyms	Htr2
Function	G-protein coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:11960784, PubMed:16873667, PubMed:17270739, PubMed:18297054, PubMed:21645528, PubMed:23129762,

	PubMed:23346101). 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) (By similarity). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors (By similarity). 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 (By similarity). Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways (PubMed:18297054). 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 (PubMed:16873667, PubMed:17270739, PubMed:18297054, PubMed:23129762). Plays a role in intestinal smooth muscle contraction, and may play a role in arterial vasoconstriction (PubMed:11960784, PubMed:23346101).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cell projection, dendrite. Cell projection, axon {ECO:0000250|UniProtKB:P14842}. Cytoplasmic vesicle. Membrane, caveola {ECO:0000250|UniProtKB:P14842}. Presynapse {ECO:0000250|UniProtKB:P14842}
Tissue Location	Detected in neurons in brain cortex. Detected in adult intestine, especially in mucosal epithelium, longitudinal and circular layers of muscularis externa and myenteric plexuses. Highly expressed in Paneth cells, and detected at lower levels in enterocytes (at protein level). Detected in neurons in the brain cortex

Background

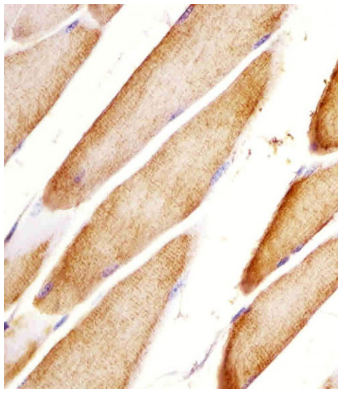
G-protein coupled receptor for 5-hydroxytryptamine (serotonin). Also functions as a receptor for various drugs and psychoactive substances, including mescaline, psilocybin, 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI) and lysergic acid diethylamide (LSD). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors. Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways. Signaling activates phospholipase C and a phosphatidylinositol-calcium second messenger system that modulates the activity of phosphatidylinositol 3-kinase and promotes the release of Ca(2+) ions from intracellular stores. Affects neural activity, perception, cognition and mood. 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.

References

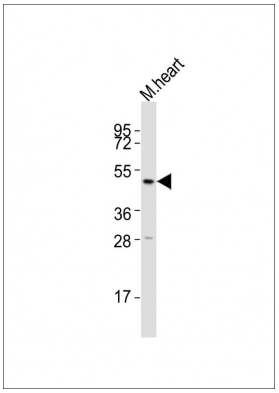
Yang W.,et al.J. Neurosci. Res. 33:196-204(1992).
Fiorica-Howells E.,et al.Am. J. Physiol. 282:G877-G893(2002).
Becamel C.,et al.J. Biol. Chem. 279:20257-20266(2004).
Weisstaub N.V.,et al.Science 313:536-540(2006).
Gonzalez-Maeso J.,et al.Neuron 53:439-452(2007).

Images

AP21295a staining Htr2a in mouse skeletal muscle



sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Anti-Htr2a Antibody (N-term). ctrlat 1:2000 dilution + mouse heart lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 53 kDa Blocking/Dilution buffer: 5% NFDM/TBST.