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5HT2A Receptor Rabbit pAb

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Catalog # AP52177

Product Information

Application	WB
Primary Accession	P28223
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52603
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human 5HT2A Receptor
Epitope Specificity	65-160/471
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein. Note=Localizes to the postsynaptic thickening of axo-dendritic synapses.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	5HT2A receptor is one of the several different receptors for 5-hydroxytryptamine (serotonin), a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. 5HT2A receptor belongs to the G-protein coupled receptor 1 family and mediates its action by association with G proteins that activate a phosphatidylinositol-calcium second messenger system. This receptor is involved in tracheal smooth muscle contraction, bronchoconstriction, and control of aldosterone production. 5HT2A receptor is an integral membrane protein which localizes to the post-synaptic thickening of axo-dendritic synapses. 5HT2A receptor protein contains a PDZ domain-binding motif which is involved in the interaction with INADL, CASK, APBA1, DLG1 and DLG4.

Additional Information

Gene ID	3356
Other Names	5-hydroxytryptamine receptor 2A, 5-HT-2, 5-HT-2A, Serotonin receptor 2A, HTR2A (HGNC:5293), HTR2
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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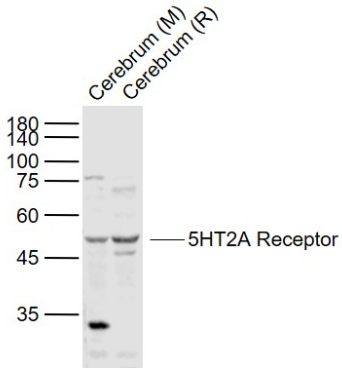
References

Saltzman A.G.,et al.Biochem. Biophys. Res. Commun. 181:1469-1478(1991).
Chen K.,et al.Brain Res. Mol. Brain Res. 14:20-26(1992).
Cook E.H. Jr.,et al.J. Neurochem. 63:465-469(1994).
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Sample:
Lane 1: Cerebrum (Mouse) Lysate at 40 ug
Lane 2: Cerebrum (Rat) Lysate at 40 ug
Primary: Anti-5HT2A Receptor (AP52177) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 53 kD
Observed band size: 50 kD

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