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Anti-5-HT1A Antibody

Catalog # AP51274

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P08908
Reactivity	Human, Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46107

Additional Information

Gene ID	3350
Other Names	ADRB2RL1; ADRBRL1; 5-hydroxytryptamine receptor 1A; 5-HT-1A; 5-HT1A; G-21; Serotonin receptor 1A
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human 5-HT1A. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	HTR1A (HGNC:5286)
Synonyms	ADRB2RL1, ADRBRL1
Function	G protein-coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:22957663, PubMed:3138543, PubMed:33762731, PubMed:37935376, PubMed:37935377, PubMed:8138923, PubMed:8393041). Also functions as a receptor for various drugs and psychoactive substances (PubMed:22957663, PubMed:3138543, PubMed:33762731, PubMed:38552625, PubMed:8138923, PubMed:8393041). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed:22957663, PubMed:3138543, PubMed:33762731, PubMed:8138923, PubMed:8393041). HTR1A is coupled to G(i)/G(o) G alpha proteins and mediates inhibitory neurotransmission: signaling inhibits adenylate cyclase activity and activates a phosphatidylinositol-calcium second messenger system that regulates the

release of Ca(2+) ions from intracellular stores (PubMed:33762731, PubMed:35610220). Beta-arrestin family members regulate signaling by mediating both receptor desensitization and resensitization processes (PubMed:18476671, PubMed:20363322, PubMed:20945968). Plays a role in the regulation of 5- hydroxytryptamine release and in the regulation of dopamine and 5- hydroxytryptamine metabolism (PubMed:18476671, PubMed:20363322, PubMed:20945968). Plays a role in the regulation of dopamine and 5- hydroxytryptamine levels in the brain, and thereby affects neural activity, mood and behavior (PubMed:18476671, PubMed:20363322, PubMed:20945968). Plays a role in the response to anxiogenic stimuli (PubMed:18476671, PubMed:20363322, PubMed:20945968).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell projection, dendrite {ECO:0000250|UniProtKB:P19327}

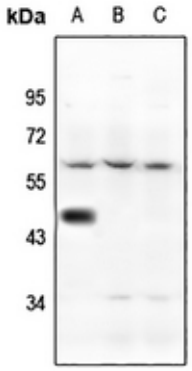
Tissue Location

Detected in lymph nodes, thymus and spleen. Detected in activated T-cells, but not in resting T-cells

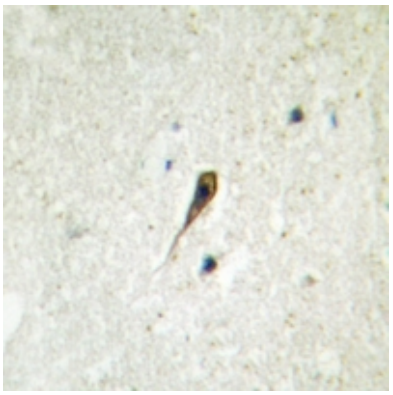
References

Kobilka B.K.,et al.Nature 329:75-79(1987).
Saltzman A.G.,et al.Submitted (FEB-1991) to the EMBL/GenBank/DDBJ databases.
Levy F.O.,et al.Submitted (MAY-1992) to the EMBL/GenBank/DDBJ databases.
Kitano T.,et al.Mol. Biol. Evol. 21:936-944(2004).
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.

Images

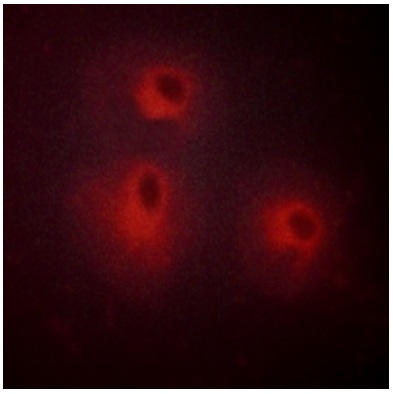


Western blot analysis of 5-HT1A expression in HEK293T (A), LO2 (B), PC12 (C) whole cell lysates. (Predicted band size: 46 kD; Observed band size: 46; 65 kD)



Immunohistochemical analysis of 5-HT1A staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of 5-HT1A staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1%



Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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