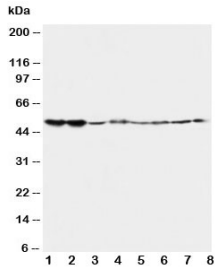
5HT2A Receptor / HTR2A Antibody (R30442)

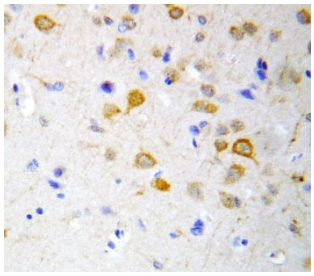
Catalog No.	Formulation	Size
R30442	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P28223
Localization	Cytoplasmic, membrane
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This 5HT2A Receptor / HTR2A Antibody is available for research use only.



5HT2A Receptor / HTR2A Antibody Human, Mouse and Rat WB. Western blot analysis of rat brain lysates, mouse brain lysates, and human U87, SMMC-7721, HT1080, and COLO320 cell lysates using 5HT2A Receptor / HTR2A Antibody. An HRP-conjugated secondary antibody with ECL substrate was used for detection. 5HT2A Receptor / HTR2A Antibody, recognizing the serotonin receptor HTR2A, detects a prominent band at approximately 53 kDa in rat, mouse, and human samples, with stronger expression observed in brain lysates, consistent with the known neuronal enrichment of HTR2A.



5HT2A Receptor / HTR2A Antibody Rat Brain IHC. Immunohistochemical staining of FFPE rat brain tissue using 5HT2A Receptor / HTR2A Antibody. An HRP-conjugated secondary antibody with DAB substrate was used for detection. 5HT2A Receptor / HTR2A Antibody, recognizing the serotonin receptor HTR2A, demonstrates predominantly neuronal cytoplasmic and membranous staining in rat brain tissue, consistent with the expected distribution of HTR2A within the central nervous system.

Description

5HT2A Receptor / HTR2A Antibody recognizes HTR2A, also known as the 5-hydroxytryptamine receptor 2A, one of the principal serotonin receptors of the class A G protein-coupled receptor (GPCR) family. Upon binding serotonin, HTR2A primarily couples to Gq/11 proteins to activate phospholipase C, resulting in intracellular calcium mobilization, protein kinase C activation, and downstream regulation of gene transcription. Through these signaling pathways, HTR2A regulates neuronal excitability, synaptic plasticity, neurotransmitter release, and numerous physiological responses throughout the central nervous system.

HTR2A is highly expressed in the cerebral cortex, hippocampus, amygdala, thalamus, and other brain regions involved in cognition, perception, mood, learning, and memory. Expression has also been reported in platelets, vascular smooth muscle, gastrointestinal tissues, and several peripheral organs, where the receptor contributes to vascular tone, platelet activation, smooth muscle contraction, and gastrointestinal function. Consequently, 5HT2A Receptor Antibody is widely used to investigate receptor localization, GPCR signaling, and serotonergic neurotransmission in both neurological and peripheral tissues.

Dysregulation of HTR2A has been implicated in schizophrenia, major depressive disorder, anxiety disorders, bipolar disorder, migraine, Alzheimer's disease, Parkinson's disease, and other neurological conditions. HTR2A is also the primary molecular target of numerous atypical antipsychotic drugs as well as serotonergic psychedelic compounds, making it one of the most intensively studied receptors in neuropharmacology. These diverse biological functions have established HTR2A as an important biomarker and therapeutic target for neuroscience, psychiatry, and drug discovery research.

For additional information about HTR2A biology, validated applications, and related products, learn more about our 5HT2AR Antibody, a Serotonin Receptor Antibody for investigating GPCR signaling, neurotransmission, psychiatric disorders, and serotonergic receptor biology.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the 5HT2A Receptor / HTR2A Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human 5HT2A Receptor (AYKSSQLQMGQKKNS) was used as the immunogen for this 5HT2A Receptor antibody.

Storage

After reconstitution, the 5HT2A Receptor antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

HTR2A Antibody, 5HT2AR Antibody, 5-Hydroxytryptamine Receptor 2A Antibody, Serotonin 2A Receptor Antibody, Serotonin Receptor 2A Antibody, 5-HT2A Antibody

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