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## HTR2C Recombinant Monoclonal Antibody

Product Code	CSB-RA616248A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P28335
Immunogen	A synthesized peptide derived from human 5HT2C Receptor
Species Reactivity	Human
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	G-protein coupled receptor for 5-hydroxytryptamine (serotonin). Also functions as a receptor for various drugs and psychoactive substances, including ergot alkaloid derivatives, 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 a phosphatidylinositol-calcium second messenger system that modulates the activity of phosphatidylinositol 3-kinase and down- stream signaling cascades and promotes the release of Ca(2+) ions from intracellular stores. Regulates neuronal activity via the activation of short transient receptor potential calcium channels in the brain, and thereby modulates the activation of pro-opiomelacortin neurons and the release of CRH that then regulates the release of corticosterone. Plays a role in the regulation of appetite and eating behavior, responses to anxiogenic stimuli and stress. Plays a role in insulin sensitivity and glucose homeostasis.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Metabolism; Signal transduction
Gene Names	HTR2C
Clone No.	9H8

Image

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## **CUSABIO TECHNOLOGY LLC**

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Western Blot

Positive WB detected in: Hela whole cell lysate, HepG2 whole cell lysate, A549 whole cell lysate All lanes: HTR2C antibody at 1:2000 Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 52, 29 kDa Observed band size: 75 kDa



IHC image of CSB-RA616248A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

The HTR2C recombinant monoclonal antibody can detect human HTR2C protein in ELISA, WB, and IHC applications. It is produced through recombinant DNA technology. The gene coding for the HTR2C monoclonal antibody is synthesized by sequencing the cDNA of the HTR2C antibody-producing hybridomas. These hybridomas are created by fusing myeloma cells with B cells taken from an animal that was immunized with a synthesized peptide derived from human HTR2C. The synthesized gene is then cloned into a vector and transfected into cells for cultivation. Finally, the resulting HTR2C recombinant monoclonal antibody is purified through affinity chromatography from the cell culture supernatant.

The HTR2C protein mainly regulates the activity of serotonin, a neurotransmitter that plays a critical role in the brain. The HTR2C protein is primarily expressed in the brain. When serotonin binds to the HTR2C receptor, it activates a signaling pathway that leads to changes in the activity of certain neurons. The HTR2C protein is involved in a range of physiological processes, including mood regulation, appetite, and sleep, and dysfunction of this protein has been associated with various neuropsychiatric disorders such as depression, anxiety, and eating disorders.