

CB1 Receptor (D5N5C) Rabbit mAb

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Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 60	Source/Isotype: Rabbit IgG	UniProt ID: #P21554	Entrez-Gene Id: 1268
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CB1 Receptor (D5N5C) Rabbit mAb recognizes endogenous levels of total CB1 Receptor protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the extracellular domains of mouse CB1 Receptor protein.

Background

The endocannabinoid system consists of the cannabinoid receptors, CB1 and CB2 receptors, the enzymes that produce and degrade the endogenous cannabinoid ligands (such as FAAH, DAG lipases, and MAG lipase), and the endocannabinoid ligands derived from the metabolism of arachidonic acid, 2-arachidonoylglycerol (2-AG) and anandamide (1-3). CB1 receptor belongs to the superfamily of G protein-coupled receptors (GPCRs) and harbors a large N-terminal extracellular domain, seven transmembrane domains, and a C-terminal intracellular tail. CB1 receptor is coupled to the Gai/o subunit of the G protein which inhibits adenylyl cyclases and regulates calcium and potassium ion channels (4). CB1 receptor is one of the most abundant GPCRs in the central nervous system. It has been shown to play critical roles in the wiring of the brain during development (5), in neuronal plasticity (6), analgesia, drug abuse and metabolic homeostasis (4). In addition, CB1 receptor has been shown to interact with other GPCRs, to give rise to novel pharmacological and signaling heteromers with implication in diseases (7,8).

Background References

1. Devane, W.A. et al. (1992) *Science* 258, 1946-9.
2. Hanus, L. et al. (2001) *Proc Natl Acad Sci U S A* 98, 3662-5.
3. Rozenfeld, R. (2011) *Traffic* 12, 12-8.
4. Mackie, K. (2006) *Annu Rev Pharmacol Toxicol* 46, 101-22.
5. Harkany, T. et al. (2008) *Curr Opin Neurobiol* 18, 338-45.
6. Mackie, K. (2008) *Mol Cell Endocrinol* 286, S60-5.
7. Rozenfeld, R. et al. (2011) *EMBO J* 30, 2350-63.
8. Rozenfeld, R. et al. (2012) *PLoS One* 7, e29239.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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