PRODUCT INFORMATION

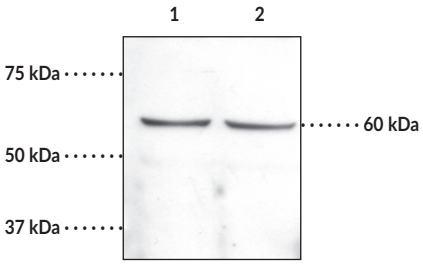
CB_1 Receptor (C-Term) Polyclonal Antibody

Item No. 10006590

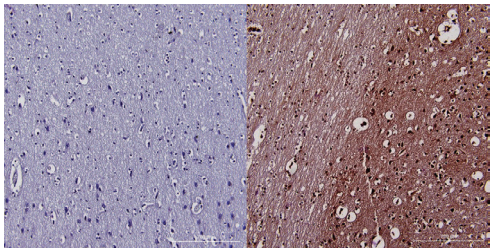
Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified IgG
Synonyms:	Cannabinoid Receptor 1, CNR1
Immunogen:	Synthetic peptide from the C-terminal region of human protein CB_1 receptor
Species Reactivity:	(+) Human, mouse, rat
Uniprot No.:	P21554
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunofluorescence (IF), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for IF and IHC is 1:100 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

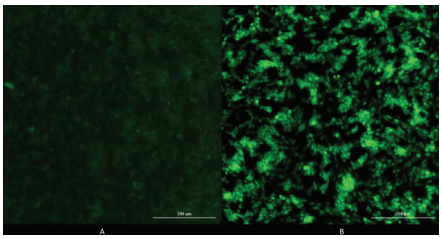
Images



Lane 1: RAW cell pellet (25 µg)
Lane 2: RAW cell supernatant (50 µg)



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain tissue after heat-induced antigen retrieval in citrate buffer, pH 6.0, using CB_1 Receptor (C-Term) Polyclonal Antibody (Item No. 10006590) at a dilution of 1:100 (left panel, secondary alone)



Immunofluorescent staining of SH-SY5Y cells. SH-SY5Y cells were fixed with 3.7% PFA and blocked with 1% FBS in PBS. Cells were probed with an anti-rabbit FITC secondary antibody alone (A) or CB_1 Receptor (C-Term) Polyclonal Antibody (Item No. 10006590) (B) at a dilution of 1:100, which was followed by Goat Anti-Rabbit IgG FITC (Item No. 10006588)

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Description

The CB_1 receptor is a G protein-coupled receptor that binds the active component of cannabis, Δ^9-tetrahydrocannabinol. This antibody has been raised against the C-terminal (amino acids 461-472) intracellular region of the human CB_1 receptor.[1,2] Human and rat CB_1 receptors exhibit 97.3% homology at the amino acid level over the complete protein, and 100% homology within the peptide sequence used to make this antibody.[3,4] This peptide exhibits no homology with the CB_2 receptor. Based on the amino acid sequence, the CB_1 receptor has a molecular weight of approximately 52,800.[4] The CB_1 receptor and the splice variant CB_{1a} are localized mainly in the brain, whereas the CB_2 receptor is localized predominantly in peripheral tissues, including the spleen and hemopoietic cells.[3-6]

References

1. Howlett, A.C., Song, C., Berglund, B.A., *et al*. Characterization of CB_1 cannabinoid receptors using receptor peptide fragments and site-directed antibodies. *Mol. Pharmacol.* **53(3)**, 504-510 (1998).
2. McIntosh, H.H., Song, C., and Howlett, A.C. CB_1 cannabinoid receptor: Cellular regulation and distribution in N18TG2 neuroblastoma cells. *Mol. Brain Res.* **53(1-2)**, 163-173 (1998).
3. Gérard, C.M., Mollereau, C., Vassart, G., *et al*. Molecular cloning of a human cannabinoid receptor which is also expressed in testis. *Biochem. J.* **279(Pt 1)**, 129-134 (1991).
4. Matsuda, L.A., Lolait, S.J., Brownstein, M.J., *et al*. Structure of a cannabinoid receptor and functional expression of the cloned cDNA. *Nature* **346(6284)**, 561-564 (1990).
5. Shire, D., Carillon, C., Kaghad, M., *et al*. An amino-terminal variant of the central cannabinoid receptor resulting from alternative splicing. *J. Biol. Chem.* **270(8)**, 3726-3731 (1995).
6. Shire, D., Calandra, B., Rinaldi-Carmona, M., *et al*. Molecular cloning, expression and function of the murine CB2 peripheral cannabinoid receptor. *Biochim. Biophys. Acta* **1307(2)**, 132-136 (1996).

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