SANTA CRUZ BIOTECHNOLOGY, INC.

CB1 (N-15): sc-10066

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The cannabinoid receptors (CB1 and CB2) are G protein-coupled receptors that inhibit adenylate cyclase activity in response to psychoactive cannabinoids. CB1 is expressed in brain tissue and, in low levels, in testis. CB2 has been shown to be expressed only by cells of the immune system, specifically by HL-60 cells. The cannabinoid receptors mediate most of the cannabinoid-induced responses in a dose-dependent, stereoselective manner. Phosphorylation of CB1 on serine 316 leads to a disruption of CB1-mediated inhibition of calcium channels and activation of potassium currents. This response system is thought to be involved in specific brain functions, such as nociception, control of movement, memory, and neuroendocrine regulation as well as having a possible role in brain development. In addition, CB1 may mediate the addictive behavior involved with the use of psychoactive cannabinoids, such as THC in marijuana.

CHROMOSOMAL LOCATION

Genetic locus: CNR1 (human) mapping to 6q15; Cnr1 (mouse) mapping to 4 A5.

SOURCE

CB1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CB1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CB1 (N-15) is recommended for detection of CB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CB1 (N-15) is also recommended for detection of CB1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CB1 siRNA (h): sc-39910, CB1 siRNA (m): sc-39911, CB1 siRNA (r): sc-270168, CB1 shRNA Plasmid (h): sc-39910-SH, CB1 shRNA Plasmid (m): sc-39911-SH, CB1 shRNA Plasmid (r): sc-270168-SH, CB1 shRNA (h) Lentiviral Particles: sc-39910-V, CB1 shRNA (m) Lentiviral Particles: sc-39911-V and CB1 shRNA (r) Lentiviral Particles: sc-270168-V.

Molecular Weight of CB1: 63/54 kDa.

Positive Controls: rat cerebellum extract: sc-2398, U-87 MG cell lysate: sc-2411 or rat brain extract: sc-2392.

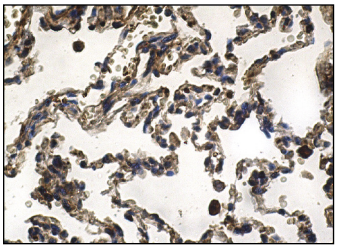
RESEARCH USE

For research use only, not for use in diagnostic procedures.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



CB1 (N-15): sc-10066. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages.

SELECT PRODUCT CITATIONS

1. Koura, Y., et al. 2004. Anandamide decreases glomerular filtration rate through predominant vasodilation of efferent arterioles in rat kidneys. J. Am. Soc. Nephrol. 15: 1488-1494.
2. Lépicier, P., et al. 2007. Endothelial CB1-receptors limit infarct size through NO formation in rat isolated hearts. Life Sci. 81: 1373-1380.
3. Marinelli, S., et al. 2007. N-arachidonoyl-dopamine tunes synaptic transmission onto dopaminergic neurons by activating both cannabinoid and vanilloid receptors. Neuropsychopharmacology 32: 298-308.
4. Sanford, A.E., et al. 2008. Cannabinoids and hamster circadian activity rhythms. Brain Res. 1222: 141-148.
5. Giuliano, M., et al. 2009. Apoptosis induced in Hep G2 cells by the synthetic cannabinoid WIN: involvement of the transcription factor PPARγ. Biochimie 91: 457-465.
6. Garcia-Gonzalez, E., et al. 2009. Cannabinoids inhibit fibrogenesis in diffuse systemic sclerosis fibroblasts. Rheumatology 48: 1050-1056.
7. Davids, M.S., et al. 2009. Response to a novel multitargeted tyrosine kinase inhibitor pazopanib in metastatic Merkel cell carcinoma. J. Clin. Oncol. 27: e97-e100.
8. Kalifa, S., et al. 2011. Distribution patterns of cannabinoid CB1 receptors in the hippocampus of APPswe/PS1δE9 double transgenic mice. Brain Res. 1376: 94-100.