

# CB1 (K-15): sc-10068

## 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 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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-10068 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CB1 (K-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 (K-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 RAW 264.7 whole cell lysate: sc-2211.

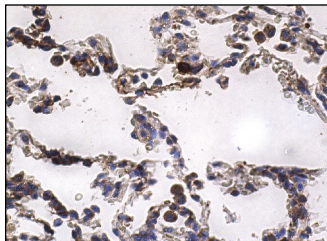
## RESEARCH USE

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 (K-15): sc-10068. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages.

## SELECT PRODUCT CITATIONS

- Telek, A., et al. 2007. Inhibition of human hair follicle growth by endo- and exocannabinoids. *FASEB J.* 21: 3534-3541.
- Zarate, J., et al. 2008. Immunohistochemical localization of CB1 cannabinoid receptors in frontal cortex and related limbic areas in obese Zucker rats: effects of chronic fluoxetine treatment. *Brain Res.* 1236: 57-72.
- Jelsing, J., et al. 2008. Identification of cannabinoid type 1 receptor expressing cocaine amphetamine-regulated transcript neurons in the rat hypothalamus and brainstem using *in situ* hybridization and immunohistochemistry. *Neuroscience* 154: 641-652.
- Czifra, G., et al. 2009. Increased expressions of cannabinoid receptor-1 and transient receptor potential vanilloid-1 in human prostate carcinoma. *J. Cancer Res. Clin. Oncol.* 135: 507-514.
- Burdyga, G., et al. 2010. Expression of cannabinoid CB1 receptors by vagal afferent neurons: kinetics and role in influencing neurochemical phenotype. *Am. J. Physiol. Gastrointest. Liver Physiol.* 299: G63-G69.
- Miko, E., et al. 2011. miR-126 inhibits proliferation of small cell lung cancer cells by targeting SLC7A5. *FEBS Lett.* 585: 1191-1196.
- Syed, N., et al. 2011. Polo-like kinase Plk2 is an epigenetic determinant of chemosensitivity and clinical outcomes in ovarian cancer. *Cancer Res.* 71: 3317-3327.

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Try **CB1 (2F9): sc-293419**, our highly recommended monoclonal alternative to CB1 (K-15).