

# CB1 (H-150): sc-20754

## 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 (H-150) is a rabbit polyclonal antibody raised against amino acids 1-150 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.

Available as agarose conjugate for immunoprecipitation, sc-20754 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

CB1 (H-150) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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 (H-150) 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 shRNA Plasmid (h): sc-39910-SH, CB1 shRNA Plasmid (m): sc-39911-SH, CB1 shRNA (h) Lentiviral Particles: sc-39910-V and CB1 shRNA (m) Lentiviral Particles: sc-39911-V.

Molecular Weight of CB1: 63/54 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or U-87 MG cell lysate: sc-2411.

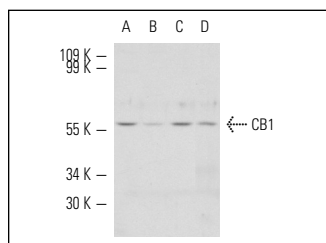
## STORAGE

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

## RESEARCH USE

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

## DATA



CB1 (H-150): sc-20754. Western blot analysis of CB1 expression in U-87 MG (A), RAW 264.7 (B) and IMR-32 (C) whole cell lysates and rat testis tissue extract (D).

## SELECT PRODUCT CITATIONS

1. Oksvold, M.P., et al. 2002. UV induces tyrosine kinase-independent internalisation and endosome arrest of the EGF receptor. *J. Cell Sci.* 115: 793-803.
2. Hayn, M.H., et al. 2008. Functional and immunohistochemical characterization of CB1 and CB2 receptors in rat bladder. *Urology* 72: 1174-1178.
3. Qiu, G.F., et al. 2008. Molecular characterization and expression profiles of cyclin B1, B2 and Cdc2 kinase during oogenesis and spermatogenesis in rainbow trout (*Oncorhynchus mykiss*). *Anim. Reprod. Sci.* 105: 209-225.
4. 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.
5. Fonseca, B.M., et al. 2009. Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation sites: evidence for a role of the endocannabinoid system during the period of placental development. *Reprod. Biol. Endocrinol.* 7: 121.
6. Fonseca, B.M., et al. 2009. Anandamide-induced cell death: dual effects in primary rat decidual cell cultures. *Placenta* 30: 686-692.
7. Yang, H., et al. 2010. Epidermal growth factor receptor transactivation by the cannabinoid receptor (CB1) and transient receptor potential vanilloid 1 (TRPV1) induces differential responses in corneal epithelial cells. *Exp. Eye Res.* 91: 462-471.
8. Fonseca, B.M., et al. 2012. Characterisation of the endocannabinoid system in rat haemochorial placenta. *Reprod. Toxicol.* 34: 347-356.

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