

# CB2 (3C7): sc-293188



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 is expressed only by cells of the immune system. The cannabinoid receptors mediate most of the cannabinoid-induced responses in a dose-dependent, stereoselective manner. 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: CNR2 (human) mapping to 1p36.11.

## SOURCE

CB2 (3C7) is a mouse monoclonal antibody raised against amino acids 302-360 of CB2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CB2 (3C7) is recommended for detection of CB2 of 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).

Suitable for use as control antibody for CB2 siRNA (h): sc-39912, CB2 shRNA Plasmid (h): sc-39912-SH and CB2 shRNA (h) Lentiviral Particles: sc-39912-V.

Molecular Weight of CB2: 45 kDa.

Positive Control: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or MOLT-4 cell lysate: sc-2233.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

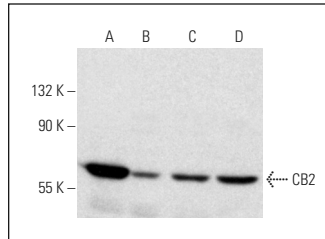
## STORAGE

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

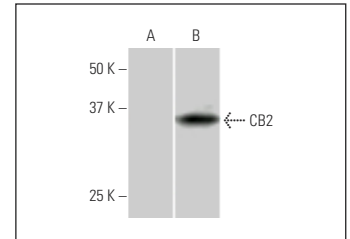
## RESEARCH USE

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

## DATA



CB2 (3C7): sc-293188. Western blot analysis of CB2 expression in HL-60 (A), Jurkat (B), MOLT-4 (C) and IB4 (D) whole cell lysates.



CB2 (3C7): sc-293188. Western blot analysis of CB2 expression in non-transfected (A) and CB2 transfected (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Rodrigues, R.S., et al. 2017. Interaction between cannabinoid type 1 and type 2 receptors in the modulation of subventricular zone and dentate gyrus neurogenesis. *Front. Pharmacol.* 8: 516.
- Del Cerro, P., et al. 2018. Activation of the cannabinoid type 2 receptor by a novel indazole derivative normalizes the survival pattern of lymphoblasts from patients with late-onset Alzheimer's disease. *CNS Drugs* 32: 579-591.
- Maia, J., et al. 2019. Effects of cannabis tetrahydrocannabinol on endocannabinoid homeostasis in human placenta. *Arch. Toxicol.* 93: 649-658.
- Pietroviato, L., et al. 2020. Treatment with cannabinoids as a promising approach for impairing fibroblast activation and prostate cancer progression. *Int. J. Mol. Sci.* 21: 787.
- Toschi, A., et al. 2021. Cannabinoid and cannabinoid-related receptors in the myenteric plexus of the porcine ileum. *Animals* 11: 263.
- Olianas, M.C., et al. 2021. Cannabinoid CB1 and CB2 receptors differentially regulate TNF-α-induced apoptosis and LPA1-mediated pro-survival signaling in HT22 hippocampal cells. *Life Sci.* 276: 119407.
- Costa, L., et al. 2021. The major endocannabinoid anandamide (AEA) induces apoptosis of human granulosa cells. *Prostaglandins Leukot. Essent. Fatty Acids* 171: 102311.
- Lillo, J., et al. 2021. Identification of the ghrelin and cannabinoid CB2 receptor heteromer functionality and marked upregulation in striatal neurons from offspring of mice under a high-fat diet. *Int. J. Mol. Sci.* 22: 8928.
- Salbini, M., et al. 2021. Oxidative stress and multi-organel damage induced by two novel phytocannabinoids, CBDB and CBDP, in breast cancer cells. *Molecules* 26: 5576.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.