SANTA CRUZ BIOTECHNOLOGY, INC.

CB2 (B-6): sc-518269

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. 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.

REFERENCES

1. Matsuda, L.A., et al. 1990. Structure of a cannabinoid receptor and functional expression of the cloned cDNA. Nature 346: 561-564.
2. Gerard, C.M., et al. 1991. Molecular cloning of a human cannabinoid receptor which is also expressed in testis. Biochem. J. 179: 129-134.
3. Munro, S., et al. 1993. Molecular characterization of a peripheral receptor for cannabinoids. Nature 365: 61-65.
4. Shire, D., et al. 1996. Molecular cloning, expression and function of the murine CB2 peripheral cannabinoid receptor. Biochim. Biophys. Acta 1307: 132-136.
5. Ledent, C., et al. 1999. Unresponsiveness to cannabinoids and reduced addictive effects of opiates in CB1 receptor knockout mice. Science 283: 401-404.
6. Sugiura, T., et al. 2000. Evidence that 2-arachidonoylglycerol but not N-palmitoylethanolamine or anandamide is the physiological ligand for the cannabinoid CB2 receptor. Comparison of the agonistic activities of various cannabinoid receptor ligands in HL-60 cells. J. Biol. Chem. 275: 605-612.
7. Fernandez-Ruiz, J., et al. 2000. The endogenous cannabinoid system and brain development. Trends Neurosci. 23: 14-20.
8. Valverde, O., et al. 2000. Reduction of stress-induced analgesia but not of exogenous opioid effects in mice lacking CB1 receptors. Eur. J. Neurosci. 12: 533-539.

CHROMOSOMAL LOCATION

Genetic locus: CNR2 (human) mapping to 1p36.11.

SOURCE

CB2 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 331-357 of CB2 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CB2 (B-6) is available conjugated to agarose (sc-518269 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518269 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518269 PE), fluorescein (sc-518269 FITC), Alexa Fluor® 488 (sc-518269 AF488), Alexa Fluor® 546 (sc-518269 AF546), Alexa Fluor® 594 (sc-518269 AF594) or Alexa Fluor® 647 (sc-518269 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518269 AF680) or Alexa Fluor® 790 (sc-518269 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CB2 (B-6) is recommended for detection of CB2 of human origin by Western Blotting (starting dilution 1:100, 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).

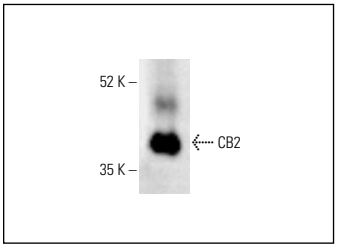
Suitable for use as control antibody for CB2 siRNA (h): sc-39912, CB2 shRNA Plasmid (h): sc-39912-SH and CB2 shRNA (h) Lentiviral Particles: sc-39912-V.

Molecular Weight of CB2: 45 kDa.

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.

DATA



CB2 (B-6): sc-518269. Western blot analysis of human recombinant CB2 fusion protein. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.

RESEARCH USE

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