## SANTA CRUZ BIOTECHNOLOGY, INC.

# CNRIP1 (H-1): sc-515504



#### 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. CNRIP1 (cannabinoid receptor interacting protein 1), also known as CRIP1 (CB1 cannabinoid receptor-interacting protein 1), is a 164 amino acid protein and G protein-coupled receptor that belongs to the CNRIP family. Involved in appetite, synaptic plasticity, neuroprotection and analgesia, CNRIP1 exists as two alternatively spliced isoforms which have been designated CNRIP1 isoform 1 is known to interact with CB1 but not CB2, thereby suppressing the inhibition of voltage-gated calcium channels. CNRIP1 isoform 2 does not have the same effect.

#### REFERENCES

- 1. Gerard, C.M., et al. 1991. Molecular cloning of a human cannabinoid receptor which is also expressed in testis. Biochem. J. 279: 129-134.
- Shire, D., et al. 1996. Molecular cloning, expression and function of the murine CB2 peripheral cannabinoid receptor. Biochim. Biophys. Acta 1307: 132-136.
- Ameri, A. 1999. The effects of cannabinoids on the brain. Prog. Neurobiol. 58: 315-348.
- 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.
- Brown, S.M., et al. 2002. Cloning and molecular characterization of the rat CB2 cannabinoid receptor. Biochim. Biophys. Acta 1576: 255-264.

#### CHROMOSOMAL LOCATION

Genetic locus: CNRIP1 (human) mapping to 2p14; Cnrip1 (mouse) mapping to 11 A2.

#### SOURCE

CNRIP1 (H-1) is a mouse monoclonal antibody raised against amino acids 1-164 representing full length CNRIP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CNRIP1 (H-1) is available conjugated to agarose (sc-515504 AC), 500 μg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515504 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515504 PE), fluorescein (sc-515504 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515504 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515504 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515504 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515504 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515504 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515504 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

#### APPLICATIONS

CNRIP1 (H-1) is recommended for detection of CNRIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 CNRIP1 siRNA (h): sc-94765, CNRIP1 siRNA (m): sc-142443, CNRIP1 shRNA Plasmid (h): sc-94765-SH, CNRIP1 shRNA Plasmid (m): sc-142443-SH, CNRIP1 shRNA (h) Lentiviral Particles: sc-94765-V and CNRIP1 shRNA (m) Lentiviral Particles: sc-142443-V.

Molecular Weight of CNRIP1: 18 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, SH-SY5Y cell lysate: sc-3812 or IMR-32 cell lysate: sc-2409.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

#### DATA





CNRIP1 (H-1): sc-515504. Western blot analysis of CNRIP1 expression in IMR-32  $({\bm A}),$  SH-SY5Y  $({\bm B})$  and HEL 92.1.7  $({\bm C})$  whole cell lysates.

CNRIP1 (H-1): sc-515504. Western blot analysis of CNRIP1 expression in IMR-32 (A), Neuro-2A (B) and C6 (C) whole cell lysates.

### **STORAGE**

Store at 4° C, \*\*D0 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.

#### PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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