SANTA CRUZ BIOTECHNOLOGY, INC.

OTUD7B (A-11): sc-514334

BACKGROUND

OTUD7B (OTU domain-containing protein 7B), also known as ZA20D1 or Cezanne, is an 843 amino acid protein that localizes to both the nucleus and the cytoplasm. Expressed in a variety of tissues, including liver, kidney, heart and immature B cells, OTUD7B functions to hydrolyze branched and linear forms of polyubiquitin, specifically deubiquinating Lys 48- and Lys 63-linked polyubiquitin chains. Via its ability to deubiquinate target proteins, OTUD7B regulates the inflammatory response within the cell and may play a role in cell survival. More specifically, OTUD7B forms a negative feedback loop in pro-inflammatory signaling, thereby suppressing NFκB activity and helping to resolve inflammatory responses. OTUD7B contains one C-terminal A20-type zinc-finger, one OTU domain and one N-terminal TRAF-binding domain through which it conveys its deubiquitinating activity.

REFERENCES

1. Heyninck, K., et al. 1999. The cytokine-inducible zinc-finger protein A20 inhibits IL-1-induced NFκB activation at the level of TRAF6. FEBS Lett. 442: 147-150.
2. Evans, P.C., et al. 2001. Isolation and characterization of two novel A20-like proteins. Biochem. J. 357: 617-623.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611748. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Evans, P.C., et al. 2003. A novel type of deubiquitinating enzyme. J. Biol. Chem. 278: 23180-23186.
5. Evans, P.C., et al. 2004. Zinc-finger protein A20, a regulator of inflammation and cell survival, has deubiquitinating activity. Biochem. J. 378: 727-734.
6. La Starza, R., et al. 2007. A common 93-kb duplicated DNA sequence at 1q21.2 in acute lymphoblastic leukemia and Burkitt lymphoma. Cancer Genet. Cytogenet. 175: 73-76.
7. Enesa, K., et al. 2008. NFκB suppression by the deubiquitinating enzyme Cezanne: a novel negative feedback loop in pro-inflammatory signaling. J. Biol. Chem. 283: 7036-7045.

CHROMOSOMAL LOCATION

Genetic locus: OTUD7B (human) mapping to 1q21.2.

SOURCE

OTUD7B (A-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 769-788 near the C-terminus of OTUD7B of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514334 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

OTUD7B (A-11) is recommended for detection of OTUD7B 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 OTUD7B siRNA (h): sc-78957, OTUD7B shRNA Plasmid (h): sc-78957-SH and OTUD7B shRNA (h) Lentiviral Particles: sc-78957-V.

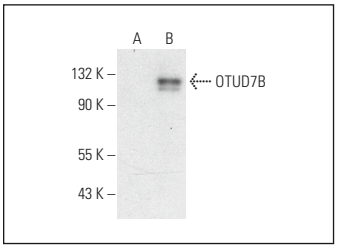
Molecular Weight of OTUD7B: 100 kDa.

Positive Controls: OTUD7B (h): 293T Lysate: sc-370269.

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



OTUD7B (A-11): sc-514334. Western blot analysis of OTUD7B expression in non-transfected: sc-117752 (**A**) and human OTUD7B transfected: sc-370269 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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