

OTUD7B (H-4): sc-514402

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 NF κ B 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

- Heyninck, K. and Beyaert, R. 1999. The cytokine-inducible zinc finger protein A20 inhibits IL-1-induced NF κ B activation at the level of TRAF6. *FEBS Lett.* 442: 147-150.
- Evans, P.C., et al. 2001. Isolation and characterization of two novel A20-like proteins. *Biochem. J.* 357: 617-623.
- 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/>
- Evans, P.C., et al. 2003. A novel type of deubiquitinating enzyme. *J. Biol. Chem.* 278: 23180-23186.

CHROMOSOMAL LOCATION

Genetic locus: OTUD7B (human) mapping to 1q21.2; Otud7b (mouse) mapping to 3 F2.1.

SOURCE

OTUD7B (H-4) 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 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OTUD7B (H-4) is available conjugated to agarose (sc-514402 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514402 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514402 PE), fluorescein (sc-514402 FITC), Alexa Fluor® 488 (sc-514402 AF488), Alexa Fluor® 546 (sc-514402 AF546), Alexa Fluor® 594 (sc-514402 AF594) or Alexa Fluor® 647 (sc-514402 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514402 AF680) or Alexa Fluor® 790 (sc-514402 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514402 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

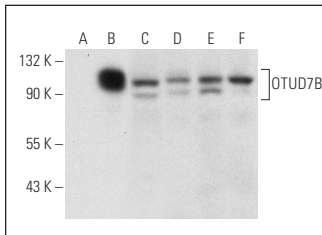
OTUD7B (H-4) is recommended for detection of OTUD7B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 OTUD7B siRNA (h): sc-78957, OTUD7B siRNA (m): sc-151945, OTUD7B shRNA Plasmid (h): sc-78957-SH, OTUD7B shRNA Plasmid (m): sc-151945-SH, OTUD7B shRNA (h) Lentiviral Particles: sc-78957-V and OTUD7B shRNA (m) Lentiviral Particles: sc-151945-V.

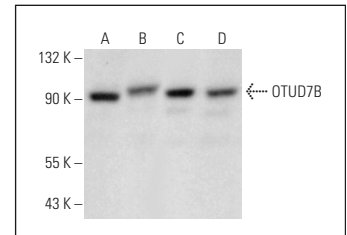
Molecular Weight of OTUD7B: 100 kDa.

Positive Controls: OTUD7B (h): 293T Lysate: sc-370269, RT-4 whole cell lysate: sc-364257 or Jurkat whole cell lysate: sc-2204.

DATA



OTUD7B (H-4): sc-514402. Western blot analysis of OTUD7B expression in non-transfected 293T: sc-117752 (A), human OTUD7B transfected 293T: sc-370269 (B), Jurkat (C), MDA-MB-435S (D), RT-4 (E) and Hep G2 (F) whole cell lysates.



OTUD7B (H-4): sc-514402. Western blot analysis of OTUD7B expression in HEK293 (A), c4 (B), AT3B-1 (C) and F9 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Paul, A. and Wang, B. 2017. RNF8- and Ube2S-dependent ubiquitin lysine 11-linkage modification in response to DNA damage. *Mol. Cell* 66: 458-472.
- Wu, X., et al. 2019. Crosstalk between Lys63- and Lys11-polyubiquitin signaling at DNA damage sites is driven by Cezanne. *Genes Dev.* 33: 1702-1717.
- Cheng, J., et al. 2021. Transcranial direct-current stimulation protects against cerebral ischemia-reperfusion injury through regulating Cezanne-dependent signaling. *Exp. Neurol.* 345: 113818.

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.

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