

Nrdp1 (B-8): sc-374120

BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. Nrdp1, also known as RNF41 (RING finger protein 41), SBBI03 or FLRF, is a 317 amino acid protein that contains one RING-type zinc finger and one SIAH-type zinc finger. Expressed in testis, ovary and prostate, Nrdp1 functions as an E3 ubiquitin-protein ligase that, characteristic of E3 ligase proteins, accepts ubiquitin (in the form of a thioester) from an E2 ubiquitin-conjugating enzyme and transfers that ubiquitin residue to substrates targeted for degradation. Specifically, Nrdp1 interacts with ErbB-3 and UBPY, thereby targeting them for proteasomal degradation.

CHROMOSOMAL LOCATION

Genetic locus: RNF41 (human) mapping to 12q13.2; Rnf41 (mouse) mapping to 10 D3.

SOURCE

Nrdp1 (B-8) is a mouse monoclonal antibody raised against amino acids 1-317 representing full length Nrdp1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nrdp1 (B-8) is available conjugated to agarose (sc-374120 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374120 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374120 PE), fluorescein (sc-374120 FITC), Alexa Fluor® 488 (sc-374120 AF488), Alexa Fluor® 546 (sc-374120 AF546), Alexa Fluor® 594 (sc-374120 AF594) or Alexa Fluor® 647 (sc-374120 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374120 AF680) or Alexa Fluor® 790 (sc-374120 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Nrdp1 (B-8) is recommended for detection of Nrdp1 of mouse, rat and 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 Nrdp1 siRNA (h): sc-75956, Nrdp1 siRNA (m): sc-75957, Nrdp1 shRNA Plasmid (h): sc-75956-SH, Nrdp1 shRNA Plasmid (m): sc-75957-SH, Nrdp1 shRNA (h) Lentiviral Particles: sc-75956-V and Nrdp1 shRNA (m) Lentiviral Particles: sc-75957-V.

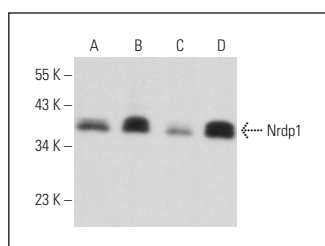
Molecular Weight of Nrdp1: 36 kDa.

Positive Controls: Nrdp1 (h): 293T Lysate: sc-115234, ES-2 cell lysate: sc-24674 or Hs 181 Tes whole cell lysate: sc-364779.

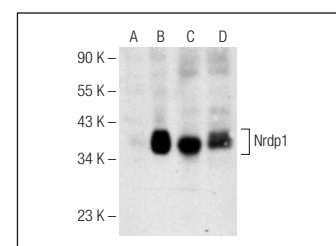
RECOMMENDED SUPPORT REAGENTS

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



Nrdp1 (B-8): sc-374120. Western blot analysis of Nrdp1 expression in ES-2 (A), A-431 (B), SH-SY5Y (C) and NIH/3T3 (D) whole cell lysates.



Nrdp1 (B-8): sc-374120. Western blot analysis of Nrdp1 expression in non-transfected 293T: sc-117752 (A), human Nrdp1 transfected 293T: sc-115234 (B), Hs 181 Tes (C) and ES-2 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Chen, S.J., et al. 2016. Nrdp1-mediated degradation of BRUCE decreases cell viability and induces apoptosis in human 786-O renal cell carcinoma cells. *Exp. Ther. Med.* 12: 597-602.
- Wang, W., et al. 2021. Xeno- and feeder-free differentiation of human iPSCs to trabecular meshwork-like cells by recombinant cytokines. *Transl. Vis. Sci. Technol.* 10: 27.
- Meng, Z., et al. 2021. A20/Nrdp1 interaction alters the inflammatory signaling profile by mediating K48- and K63-linked polyubiquitination of effectors MyD88 and TBK1. *J. Biol. Chem.* 297: 100811.

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.