

ZNRF2 (T-13): sc-138741

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). ZNRF2 (zinc and RING finger 2), also known as RNF202, is a 242 amino acid peripheral membrane protein that contains one RING-type zinc finger and localizes to the lysosome, as well as the endosome and the cell junction. Expressed at high levels in brain tissue, ZNRF2 is thought to function as an E3 ubiquitin-protein ligase that may be involved in the establishment and maintenance of neuronal transmission and plasticity. Upon DNA damage, ZNRF2 is subject to phosphorylation, probably by ATR or ATM.

REFERENCES

1. Ciechanover, A. 1994. The ubiquitin-mediated proteolytic pathway: mechanisms of action and cellular physiology. *Biol. Chem. Hoppe-Seyler* 375: 565-581.
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3. Hochstrasser, M. 1995. Ubiquitin, proteasomes, and the regulation of intracellular protein degradation. *Curr. Opin. Cell Biol.* 7: 215-223.
4. Hochstrasser, M. 1996. Ubiquitin-dependent protein degradation. *Annu. Rev. Genet.* 30: 405-439.
5. Haas, A.L., et al. 1997. Pathways of ubiquitin conjugation. *FASEB J.* 11: 1257-1268.
6. Araki, T., et al. 2003. ZNRF proteins constitute a family of presynaptic E3 ubiquitin ligases. *J. Neurosci.* 23: 9385-9394.
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CHROMOSOMAL LOCATION

Genetic locus: ZNRF2 (human) mapping to 7p14.3; Znr2 (mouse) mapping to 6 B3.

SOURCE

ZNRF2 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ZNRF2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138741 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ZNRF2 (T-13) is recommended for detection of ZNRF2 of mouse and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ZNRF family members.

ZNRF2 (T-13) is also recommended for detection of ZNRF2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ZNRF2 siRNA (h): sc-89499, ZNRF2 siRNA (m): sc-155814, ZNRF2 shRNA Plasmid (h): sc-89499-SH, ZNRF2 shRNA Plasmid (m): sc-155814-SH, ZNRF2 shRNA (h) Lentiviral Particles: sc-89499-V and ZNRF2 shRNA (m) Lentiviral Particles: sc-155814-V.

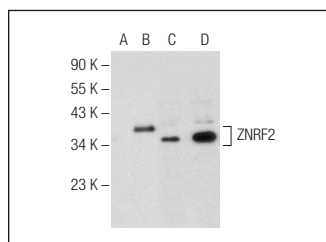
Molecular Weight of ZNRF2: 24 kDa.

Positive Controls: ZNRF2 (h): 293T Lysate: sc-372193, Jurkat whole cell lysate: sc-2204 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



ZNRF2 (T-13): sc-138741. Western blot analysis of ZNRF2 expression in non-transfected 293T: sc-117752 (A), human ZNRF2 transfected 293T: sc-372193 (B), Jurkat (C) and IMR-32 (D) 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.

PROTOCOLS

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