

RNF8 (C-12): sc-49097

BACKGROUND

The RING finger motif is a specialized DNA-binding zinc finger domain found in many transcriptional regulatory proteins. The RING finger protein (RNF) family includes any protein containing the signature RING finger motif. RNF8 is an ubiquitously expressed, nuclear RING finger protein that acts as an E3 ubiquitin-protein ligase. It is required for the ubiquitination of some nuclear proteins and promotes their subsequent degradation. The heterodimeric ubiquitin-conjugating enzyme UBC13 interacts with RNF8, and they co-localize in the nucleus. RNF8 may regulate mediation of UBC13 polyubiquitylation by elongating the ubiquitin chains. RNF8 also binds to Retinoid X receptor α (RXR α), a member of the steroid hormone receptor superfamily. It increases RXR α -mediated transactivation of the RXR α -responsive element (RXRE) promoter in a dose-dependent manner, suggesting that RNF8 is a regulator of RXR α -mediated transcriptional activity.

REFERENCES

- Moynihan, T.P., et al. 1999. The ubiquitin-conjugating enzymes UbcH7 and UbcH8 interact with RING finger/IBR motif-containing domains of HHARI and H7-AP1. *J. Biol. Chem.* 274: 30963-30968.
- Ito, K., et al. 2001. N-terminally extended human ubiquitin-conjugating enzymes (E2s) mediate the ubiquitination of RING finger proteins ARA54 and RNF8. *Eur. J. Biochem.* 268: 2725-2732.
- Pringa, E., et al. 2001. Interaction of the RING finger-related U-box motif of a nuclear dot protein with ubiquitin-conjugating enzymes. *J. Biol. Chem.* 276: 19617-19623.
- Ulrich, H.D. 2003. Protein-protein interactions within an E2-RING finger complex. Implications for ubiquitin-dependent DNA damage repair. *J. Biol. Chem.* 278: 7051-7058.
- Hirvonen-Santti, S.J., et al. 2004. Small nuclear RING finger protein expression during gonad development: regulation by gonadotropins and estrogen in the postnatal ovary. *Endocrinology* 145: 2433-2444.
- Takano, Y., et al. 2004. The RING finger protein, RNF8, interacts with retinoid X receptor α and enhances its transcription-stimulating activity. *J. Biol. Chem.* 279: 18926-18934.
- Kitamura, K., et al. 2005. The RING finger protein haprin: domains and function in the acrosome reaction. *Curr. Protein Pept. Sci.* 6: 567-574.
- Lindmo, K. and Stenmark, H. 2006. How a RING finger protein and a steroid hormone control autophagy. *Autophagy* 2: 321-322.
- Plans, V., et al. 2006. The RING finger protein RNF8 recruits UBC13 for Lysine 63-based self-polyubiquitylation. *J. Cell. Biochem.* 97: 572-582.

CHROMOSOMAL LOCATION

Genetic locus: RNF8 (human) mapping to 6p21.2; Rnf8 (mouse) mapping to 17 A3.3.

SOURCE

RNF8 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RNF8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49097 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNF8 (C-12) is recommended for detection of RNF8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 RNF8 siRNA (h): sc-61484, RNF8 siRNA (m): sc-61485, RNF8 shRNA Plasmid (h): sc-61484-SH, RNF8 shRNA Plasmid (m): sc-61485-SH, RNF8 shRNA (h) Lentiviral Particles: sc-61484-V and RNF8 shRNA (m) Lentiviral Particles: sc-61485-V.

Molecular Weight of RNF8: 56 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **RNF8 (B-2): sc-271462**, our highly recommended monoclonal alternative to RNF8 (C-12). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RNF8 (B-2): sc-271462**.