

# RNF8 (H-300): sc-134492

## 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 a 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 alpha (RXR $\alpha$ ), a member of the steroid hormone receptor superfamily. It increases RXR $\alpha$ -mediated transactivation of the RXR $\alpha$ -responsive element (RXRE) promoter in a dose-dependent manner, suggesting that RNF8 is a regulator of RXR $\alpha$ -mediated transcriptional activity.

## REFERENCES

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- Takano, Y., et al. 2004. The RING finger protein, RNF8, interacts with retinoid X receptor  $\alpha$  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.
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- 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 (H-300) is a rabbit polyclonal antibody raised against amino acids 186-485 mapping at the C-terminus of RNF8 of human origin.

## PRODUCT

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

## APPLICATIONS

RNF8 (H-300) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

RNF8 (H-300) is also recommended for detection of RNF8 in additional species, including canine.

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.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa nuclear extract: sc-2120 or THP-1 nuclear extract: sc-24963.

## 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.

## SELECT PRODUCT CITATIONS

- Yang, Y., et al. 2013. Cell cycle stage-specific roles of Rad18 in tolerance and repair of oxidative DNA damage. *Nucleic Acids Res.* 41: 2296-2312.

## 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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Try **RNF8 (B-2): sc-271462**, our highly recommended monoclonal alternative to RNF8 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RNF8 (B-2): sc-271462**.