

# RNF8 (X-21): sc-133971

## 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  $\alpha$  (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.
- 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.

## SOURCE

RNF8 (X-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic RNF8 peptide of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

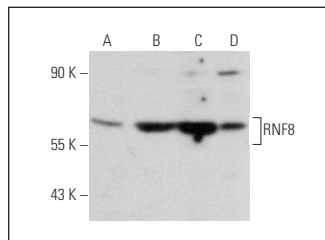
RNF8 (X-21) is recommended for detection of RNF8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-61484-SH and RNF8 shRNA (h) Lentiviral Particles: sc-61484-V.

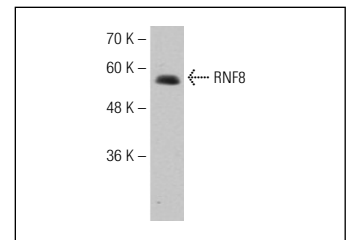
Molecular Weight of RNF8: 56 kDa.

Positive Controls: RNF8 (h): 293T Lysate: sc-174011, THP-1 nuclear extract: sc-24963 or Jurkat whole cell lysate: sc-2204.

## DATA



RNF8 (X-21): sc-133971. Western blot analysis of RNF8 expression in non-transfected: sc-117752 (A) and human RNF8 transfected: sc-174061 (B) 293T whole cell lysates and Jurkat (C) and THP-1 (D) nuclear extracts.



RNF8 (X-21): sc-133971. Western blot analysis of RNF8 expression in Jurkat whole cell lysate.

## SELECT PRODUCT CITATIONS

- Fritsch, J., et al. 2014. Cell fate decisions regulated by k63 ubiquitination of tumor necrosis factor receptor 1. *Mol. Cell. Biol.* 34: 3214-3228.

## 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.



Try **RNF8 (B-2): sc-271462**, our highly recommended monoclonal alternative to RNF8 (X-21). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RNF8 (B-2): sc-271462**.