

# ZNRF3 (P-15): sc-86958



The Power to Question

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. 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. 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). ZNRF3 (zinc/RING finger protein 3), also known as RNF203 (RING finger protein 203), is a 936 amino acid single pass transmembrane protein that contains one RING-type zinc finger. Related zinc/RING finger proteins, such as ZNRF1 and ZNRF2, are E3 ubiquitin-protein ligases that are thought to be involved in the establishment and maintenance of neuronal transmission and plasticity, therefore it is likely that ZNRF3 may function in a similar manner.

## REFERENCES

- Hochstrasser, M. 1995. Ubiquitin, proteasomes, and the regulation of intracellular protein degradation. *Curr. Opin. Cell Biol.* 7: 215-223.
- Hochstrasser, M. 1996. Ubiquitin-dependent protein degradation. *Annu. Rev. Genet.* 30: 405-439.
- Borden, K.L., et al. 1996. The RING-finger domain: a recent example of a sequence-structure family. *Curr. Opin. Struct. Biol.* 6: 395-401.
- Haas, A.L., et al. 1997. Pathways of ubiquitin conjugation. *FASEB J.* 11: 1257-1268.
- Sun, Y., et al. 2001. SAG/ROC/Rbx/Hrt, a zinc RING-finger gene family: molecular cloning, biochemical properties, and biological functions. *Antioxid. Redox Signal.* 3: 635-650.

## CHROMOSOMAL LOCATION

Genetic locus: ZNRF3 (human) mapping to 22q12.1; Znr3 (mouse) mapping to 11 A1.

## SOURCE

ZNRF3 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNRF3 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-86958 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86958 X, 100 µg/0.1 ml.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

ZNRF3 (P-15) is recommended for detection of ZNRF3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with ZNRF1.

ZNRF3 (P-15) is also recommended for detection of ZNRF3 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for ZNRF3 siRNA (h): sc-77014, ZNRF3 siRNA (m): sc-155815, ZNRF3 shRNA Plasmid (h): sc-77014-SH, ZNRF3 shRNA Plasmid (m): sc-155815-SH, ZNRF3 shRNA (h) Lentiviral Particles: sc-77014-V and ZNRF3 shRNA (m) Lentiviral Particles: sc-155815-V.

ZNRF3 (P-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

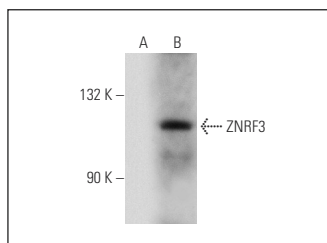
Molecular Weight of ZNRF3: 101 kDa.

Positive Controls: mouse brain extract: sc-2253 or ZNRF3 (h2): 293T Lysate: sc-158167.

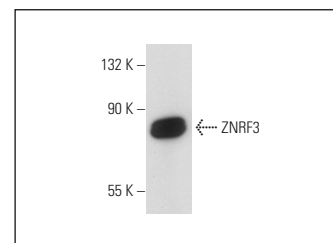
## RECOMMENDED SECONDARY REAGENTS

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 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 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.

## DATA



ZNRF3 (P-15): sc-86958. Western blot analysis of ZNRF3 expression in non-transfected: sc-117752 (A) and human ZNRF3 transfected: sc-158167 (B) 293T whole cell lysates.



ZNRF3 (P-15): sc-86958. Western blot analysis of ZNRF3 expression in mouse brain tissue extract.

## RESEARCH USE

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