

RNF148 (G-11): sc-137726

BACKGROUND

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. RNF148 (RING finger protein 148) is a 305 amino acid single-pass membrane protein that contains one PA (protease associated) domain and a single RING-type zinc finger. RNF148 is encoded by a gene that maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance.

REFERENCES

1. Tspiras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro $\alpha 2(I)$ gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Freemont, P.S. 1993. The RING finger. A novel protein sequence motif related to the zinc finger. *Ann. N.Y. Acad. Sci.* 684: 174-192.
3. Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. *Curr. Opin. Struct. Biol.* 6: 395-401.
4. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
5. Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. *Proc. Natl. Acad. Sci. USA* 96: 11364-11369.
6. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.

CHROMOSOMAL LOCATION

Genetic locus: RNF148 (human) mapping to 7q31.32; Rnf148 (mouse) mapping to 6 A3.1.

SOURCE

RNF148 (G-11) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of RNF148 of human origin.

PRODUCT

Each vial contains 100 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-137726 P, (100 μ g 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-137726 X, 200 μ g/0.1 ml.

APPLICATIONS

RNF148 (G-11) is recommended for detection of RNF148 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RNF family members.

RNF148 (G-11) is also recommended for detection of RNF148 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RNF148 siRNA (h): sc-89590, RNF148 siRNA (m): sc-153016, RNF148 shRNA Plasmid (h): sc-89590-SH, RNF148 shRNA Plasmid (m): sc-153016-SH, RNF148 shRNA (h) Lentiviral Particles: sc-89590-V and RNF148 shRNA (m) Lentiviral Particles: sc-153016-V.

RNF148 (G-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

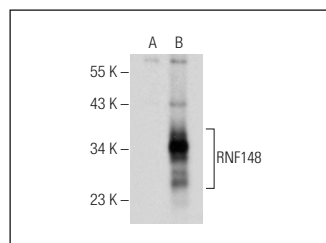
Molecular Weight of RNF148: 34 kDa.

Positive Controls: RNF148 (h): 293T Lysate: sc-114434.

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



RNF148 (G-11): sc-137726. Western blot analysis of RNF148 expression in non-transfected: sc-117752 (A) and human RNF148 transfected: sc-114434 (B) 293T 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.

RESEARCH USE

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