

ZNRF4 (S-12): sc-169904

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 protein-protein interactions and protein-DNA interactions. ZNRF4 (zinc and ring finger 4), also known as spzn, RNF204, Ssrzf1 or SPERIZIN, is a 429 amino acid single-pass type I membrane protein that contains one RING-type zinc finger domain and a PA (protease associated) domain. ZNRF4 is encoded by a gene located on human chromosome 19p13.3. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. Chromosome 19 is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

1. Saurin, A.J., Borden, K.L., Boddy, M.N. and Freemont, P.S. 1996. Does this have a familiar RING? *Trends Biochem. Sci.* 21: 208-214.
2. Bouwmeester, T., Bauch, A., Ruffner, H., Angrand, P.O., Bergamini, G., Coughton, K., Cruciat, C., Eberhard, D., Gagneur, J., Ghidelli, S., Hopf, C., Huhse, B., Mangano, R., et al. 2004. A physical and functional map of the human TNF-alpha/NFkB signal transduction pathway. *Nat. Cell Biol.* 6: 97-9105.
3. Trettel, F., Mantuano, E., Calabresi, V., Veneziano, L., Olsen, A.S., Georgescu, A., Gordon, L., Sabbadini, G., Frontali, M. and Jodice, C. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
4. Lehner, B., Semple, J.I., Brown, S.E., Counsell, D., Campbell, R.D. and Sanderson, C.M. 2004. Analysis of a high-throughput yeast two-hybrid system and its use to predict the function of intracellular proteins encoded within the human MHC class III region. *Genomics* 83: 153-167.
5. Ishibashi, T., Usami, T., Fujie, M., Azumi, K., Satoh, N. and Fujiwara, S. 2005. Oligonucleotide-based microarray analysis of retinoic acid target genes in the protochordate, *Ciona intestinalis*. *Dev. Dyn.* 233: 1571-1578.
6. Burger, A., Amemiya, Y., Kitching, R. and Seth, A.K. 2006. Novel RING E3 ubiquitin ligases in breast cancer. *Neoplasia* 8: 689-695.

CHROMOSOMAL LOCATION

Genetic locus: ZNRF4 (human) mapping to 19p13.3.

SOURCE

ZNRF4 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ZNRF4 of human origin.

STORAGE

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

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-169904 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNRF4 (S-12) is recommended for detection of ZNRF4 of 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); non cross-reactive with other ZNRF family members.

Suitable for use as control antibody for ZNRF4 siRNA (h): sc-97352, ZNRF4 shRNA Plasmid (h): sc-97352-SH and ZNRF4 shRNA (h) Lentiviral Particles: sc-97352-V.

Molecular Weight of ZNRF4: 47 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 Blotto 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.

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.