

FcRH1 (H-5): sc-515004

BACKGROUND

The Fc receptor homolog (FcRH) family of proteins are related to the classical Fc receptors (FcR) and belong to the immunoglobulin receptor superfamily. The proteins in the FcRH family are type I transmembrane glycoproteins and consist of FcRH1-FcRH6. The genes encoding the human FcRH proteins map to chromosome 1, near the related FCR genes. The FcRH proteins, which are involved in immune system regulation, have immunoreceptor-tyrosine inhibitory motifs in their cytoplasmic domains. Mutations in the gene encoding for the FcRH proteins may be associated with systemic lupus erythematosus, autoimmune thyroid disease and rheumatoid arthritis. The FcRH genes are expressed primarily, although not exclusively, by mature B lineage cells, and may serve important regulatory roles in normal and neoplastic B cell development.

REFERENCES

1. Davis, R.S., et al. 2001. Identification of a family of Fc receptor homologs with preferential B cell expression. *Proc. Natl. Acad. Sci. USA* 98: 9772-9777.
2. Davis, R.S., et al. 2002. Fc receptor homologs (FcRH1-5) extend the Fc receptor family. *Curr. Top. Microbiol. Immunol.* 266: 85-112.
3. Davis, R.S., et al. 2002. Fc receptor homologs: newest members of a remarkably diverse Fc receptor gene family. *Immunol. Rev.* 190: 123-136.
4. Davis, R.S., et al. 2004. Differential B cell expression of mouse Fc receptor homologs. *Int. Immunol.* 16: 1343-1353.
5. Davis, R.S., et al. 2005. An extended family of Fc receptor relatives. *Eur. J. Immunol.* 35: 674-680.
6. Leu, C.M., et al. 2005. FcRH1: an activation co-receptor on human B cells. *Blood* 105: 1121-1126.

CHROMOSOMAL LOCATION

Genetic locus: TRIM9 (human) mapping to 14q22.1; Trim9 (mouse) mapping to 12 C2.

SOURCE

FcRH1 (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 377-398 near the C-terminus of FcRH1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515004 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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.

APPLICATIONS

TRIM9 (G-4) is recommended for detection of TRIM9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for TRIM9 siRNA (h): sc-92385, TRIM9 siRNA (m): sc-154673, TRIM9 shRNA Plasmid (h): sc-92385-SH, TRIM9 shRNA Plasmid (m): sc-154673-SH, TRIM9 shRNA (h) Lentiviral Particles: sc-92385-V and TRIM9 shRNA (m) Lentiviral Particles: sc-154673-V.

Molecular Weight (predicted) of FcRH1: 47 kDa.

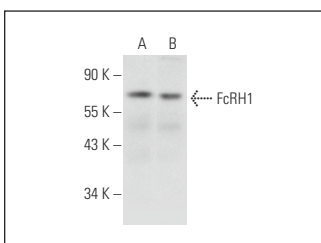
Molecular Weight (observed) of FcRH1: 71 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, A549 cell lysate: sc-2413 or Raji whole cell lysate: sc-364236.

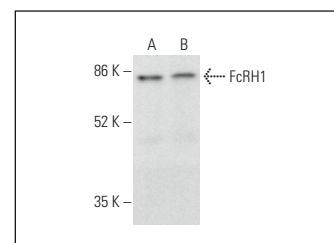
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FcRH1 (H-5): sc-515004. Western blot analysis of FcRH1 expression in Raji (A) and K-562 (B) whole cell lysates.



FcRH1 (H-5): sc-515004. Western blot analysis of FcRH1 expression in K-562 (A) and A549 (B) whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.