

FcRH1 (E-8): sc-515003

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.

CHROMOSOMAL LOCATION

Genetic locus: FCRL1 (human) mapping to 1q23.1; Fcrl1 (mouse) mapping to 3 F1.

SOURCE

FcRH1 (E-8) 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FcRH1 (E-8) is available conjugated to agarose (sc-515003 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515003 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515003 PE), fluorescein (sc-515003 FITC), Alexa Fluor® 488 (sc-515003 AF488), Alexa Fluor® 546 (sc-515003 AF546), Alexa Fluor® 594 (sc-515003 AF594) or Alexa Fluor® 647 (sc-515003 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515003 AF680) or Alexa Fluor® 790 (sc-515003 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515003 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

FcRH1 (E-8) is recommended for detection of FcRH1 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 FcRH1 siRNA (h): sc-45628, FcRH1 siRNA (m): sc-155892, FcRH1 shRNA Plasmid (h): sc-45628-SH, FcRH1 shRNA Plasmid (m): sc-155892-SH, FcRH1 shRNA (h) Lentiviral Particles: sc-45628-V and FcRH1 shRNA (m) Lentiviral Particles: sc-155892-V.

Molecular Weight (predicted) of FcRH1: 47 kDa.

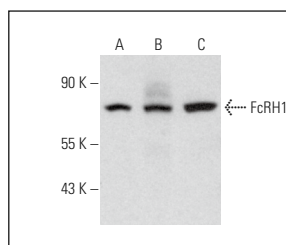
Molecular Weight (observed) of FcRH1: 71 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Ramos cell lysate: sc-2216 or Raji whole cell lysate: sc-364236.

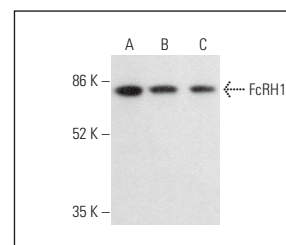
RECOMMENDED SUPPORT REAGENTS

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 (E-8): sc-515003. Western blot analysis of FcRH1 expression in K-562 (A), Ramos (B) and Raji (C) whole cell lysates.



FcRH1 (E-8): sc-515003. Western blot analysis of FcRH1 expression in K-562 (A), A549 (B) and Jurkat (C) 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.

PROTOCOLS

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