

## FcRH3 (C-2): sc-365706

### 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 FcRH proteins may be associated with systemic lupus erythematosus, autoimmune thyroid disease and rheumatoid arthritis. The highly restricted pattern of mouse FcRH3 expression suggests this member of the phylogenetically conserved FcRH family may have an important immunoregulatory role in marginal zone B cells.

### REFERENCES

1. Davis, R.S., Wang, Y.H., Kubagawa, H. and Cooper, M.D. 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., Dennis, G., Jr., Odom, M.R., Gibson, A.W., Kimberly, R.P., Burrows, P.D. and Cooper, M.D. 2002. Fc receptor homologs: newest members of a remarkably diverse Fc receptor gene family. *Immunol. Rev.* 190: 123-136.
3. Ehrhardt, G.R., Davis, R.S., Hsu, J.T., Leu, C.M., Ehrhardt, A. and Cooper, M.D. 2003. The inhibitory potential of Fc receptor homolog 4 on memory B cells. *Proc. Natl. Acad. Sci. USA* 100: 13489-13494.
4. Davis, R.S., Stephan, R.P., Chen, C.C., Dennis, G. Jr. and Cooper, M.D. 2004. Differential B cell expression of mouse Fc receptor homologs. *Int. Immunol.* 16: 1343-1353.
5. Davis, R.S., Ehrhardt, G.R., Leu, C.M., Hirano, M. and Cooper, M.D. 2005. An extended family of Fc receptor relatives. *Eur. J. Immunol.* 35: 674-680.

### CHROMOSOMAL LOCATION

Genetic locus: FCRL3 (human) mapping to 1q23.1.

### SOURCE

FcRH3 (C-2) is a mouse monoclonal antibody raised against amino acids 31-100 mapping near the N-terminus of FcRH3 of human origin.

### PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FcRH3 (C-2) is available conjugated to agarose (sc-365706 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365706 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365706 PE), fluorescein (sc-365706 FITC), Alexa Fluor® 488 (sc-365706 AF488), Alexa Fluor® 546 (sc-365706 AF546), Alexa Fluor® 594 (sc-365706 AF594) or Alexa Fluor® 647 (sc-365706 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365706 AF680) or Alexa Fluor® 790 (sc-365706 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

### APPLICATIONS

FcRH3 (C-2) is recommended for detection of FcRH3 of 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 FcRH3 siRNA (h): sc-45791, FcRH3 shRNA Plasmid (h): sc-45791-SH and FcRH3 shRNA (h) Lentiviral Particles: sc-45791-V.

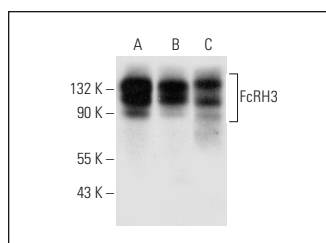
Molecular Weight of FcRH3: 92 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, NAMALWA cell lysate: sc-2234 or Raji whole cell lysate: sc-364236.

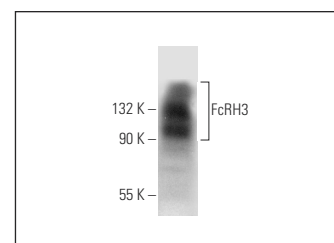
### RECOMMENDED SUPPORT REAGENTS

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



FcRH3 (C-2): sc-365706. Western blot analysis of FcRH3 expression in BJAB (A), NAMALWA (B) and GA-10 (C) whole cell lysates.



FcRH3 (C-2): sc-365706. Western blot analysis of FcRH3 expression in Raji whole cell lysate.

### 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](http://www.scbt.com) for detailed protocols and support products.

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