

FCRLB (Y-14): sc-161584

BACKGROUND

Fc receptor-like (FCRL) molecules are implicated in both malignancies and autoimmune disorders. Homologous to the well-known receptors in the Fc division of immunoglobulins (FCR), Fc receptor-like molecules helped contribute many new genes to the immunoglobulin superfamily (IgSF). These genes, located on the human chromosomal region 1q21-23, also display significant diversity between humans and mice. The Fc receptor-like molecules retain dual or autonomous signaling properties, as well as diverse extracellular frameworks and preferential B lineage expression. FCRLB (Fc receptor-like B), also known as FCRL2 (Fc receptor-like protein 2), FcRY (Fc receptor-related protein Y), FCRLM2 (Fc receptor-like and mucin-like protein 2) or FREB-2 (Fc receptor homolog expressed in B cells protein 2), is a 426 amino acid cytoplasmic and endoplasmic reticulum protein that contains 2 Ig-like C2-type (immunoglobulin-like) domains and exists as 5 alternatively spliced isoforms.

REFERENCES

1. Mechetina, L.V., et al. 2002. FCRL, a novel member of the leukocyte Fc receptor family possesses unique structural features. *Eur. J. Immunol.* 32: 87-96.
2. Masuda, K., et al. 2005. FcRY, an Fc receptor related gene differentially expressed during B lymphocyte development and activation. *Gene* 363: 32-40.
3. Wilson, T.J. and Colonna, M. 2005. A new Fc receptor homolog, FREB2, found in germinal center B cells. *Genes Immun.* 6: 341-346.
4. Chikhaev, N.A., et al. 2005. Cloning and characterization of the human FCRL2 gene. *Genomics* 85: 264-272.
5. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609251. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Taylor, A.I., et al. 2007. The first avian Ig-like Fc receptor family member combines features of mammalian FcR and FCRL. *Immunogenetics* 59: 323-328.

CHROMOSOMAL LOCATION

Genetic locus: FCRLB (human) mapping to 1q23.3; Fcrlb (mouse) mapping to 1 H3.

SOURCE

FCRLB (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FCRLB of human origin.

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-161584 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FCRLB (Y-14) is recommended for detection of FCRLB of mouse, rat and 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 FCRLM1 or FCRL5.

FCRLB (Y-14) is also recommended for detection of FCRLB in additional species, including bovine.

Suitable for use as control antibody for FCRLB siRNA (h): sc-88168, FCRLB siRNA (m): sc-145153, FCRLB shRNA Plasmid (h): sc-88168-SH, FCRLB shRNA Plasmid (m): sc-145153-SH, FCRLB shRNA (h) Lentiviral Particles: sc-88168-V and FCRLB shRNA (m) Lentiviral Particles: sc-145153-V.

Molecular Weight of FCRLB: 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.

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 or our catalog for detailed protocols and support products.