

FCRLB (Q-14): sc-161583

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 1q23.3, 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. Chikaev, 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 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FCRLB 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.

PROTOCOLS

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

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-161583 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FCRLB (Q-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), 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); non cross-reactive with FCRLM1 or FCRL5.

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

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.

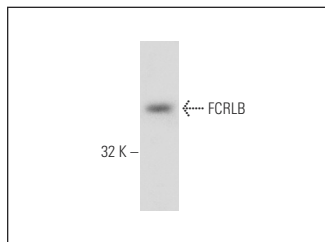
Molecular Weight of FCRLB: 47 kDa.

Positive Controls: Raji whole cell lysate: sc-364236.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FCRLB (Q-14): sc-161583. Western blot analysis of FCRLB expression in Raji whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.