

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived
Ala18-Ser426 with a C-terminal 6-His tag
Accession # Q6BAA4

N-terminal Sequence Analysis Ala18

Predicted Molecular Mass 46 kDa

SPECIFICATIONS

SDS-PAGE 65-70 kDa, reducing conditions

Activity Measured by its ability to bind human IgG with an estimated $K_D < 120$ nM.

Endotoxin Level <0.01 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

FCRLB, also known as FCRL2, FCRY, and FREB2, is a 60 kDa protein with sequence homology to classical Fc receptors. There are at least six type 1 transmembrane FCRL proteins and two that lack transmembrane segments. Each family member contains between three and nine immunoglobulin-like domains. FCRL proteins are differentially expressed within the B cell lineage and can either promote or inhibit B cell proliferation and activation (1, 2). According to R&D Systems testing, FCRLB binds to purified human IgG with high affinity. Human FCRLB shares 82% and 85% amino acid sequence identity with mouse and rat FCRLB, respectively. It contains a putative signal peptide, three immunoglobulin-like domains, and a mucin-like stalk that is rich in Pro, Ser, and Thr residues (1-3). The stalk region also contains di-Leu motifs and an unpaired cysteine (1-3). Alternative splicing generates isoforms with deletions in the putative signal peptide and substitutions and/or truncations in the third Ig-like domain (3). When expressed in transfectants, FCRLB is not secreted but shows a diffuse intracellular localization (3, 4). FCRLB is expressed at a low level in placenta and in B lineage cells of the germinal center (3, 4). It is up-regulated in B cells by BAFF and LPS (5). Among non-hematopoietic cells, FCRLB is expressed in fibroblasts, melanocytes, and melanoma (3, 5). It is preferentially expressed in nonproliferating cells and at the onset of apoptosis (4, 5).

References:

1. Davis, R.S. (2007) Annu. Rev. Immunol. **25**:525.
2. Maltais, L.J. *et al.* (2006) Nat. Immunol. **7**:431.
3. Chikaev, N.A. *et al.* (2005) Genomics **85**:264.
4. Wilson, T.J. and M. Colonna (2005) Genes Immun. **6**:341.
5. Masuda, K. *et al.* (2005) Gene **363**:32.