Biotinylated human Fc gamma RIIb / CD32b protein

Catalog number HUGR2B-B

Synonyms

CD32, CD32B, FCGR2, FCGR2B, FCGRII, FCGRIIB, FCR2, FCR2B, FCRII, FCRIIB, IGFR2, IGFR2B, IGFRII, IGFRIIB, Fc gamma R2, Fc gamma R2b, Fc gamma RII, Fc gamma RIIb, Fcg R2, Fcg R2b, Fcg RII, Fcg RIIb

Species

Human

Accession number

P31994

Allotype

Not applicable

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD32b (Ala 46-Pro 217) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD32b including tag consists of 211 amino acids and has a theoretical mass of 23798 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 μg vials with 250 μl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lypholized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIb, also known as FcγRIIb or CD32b, is a type I integral membrane glycoprotein. CD32b is a member of the immunoglobulin superfamily and is expressed on B cells, subsets of monocytes, macrophages and granulocytes, platelets and mast cells. CD32b binds monomeric IgG with low affinity but is efficient at binding immune complexes and is a negative regulator of cell activation, proliferation, endocytosis, phagocytosis, and degranulation. CD32b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail containing the immunoreceptor tyrosine-based inhibition (ITIM) motif. The product provided only contains the extracellular portion of CD32.

For research use only. Not for use in diagnostic or therapeutic procedures.

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