Human Fc gamma RIIIB / CD16b (NA2) Protein, Strep Tag (MALS & SPR verified)

Catalog # CDB-H5283

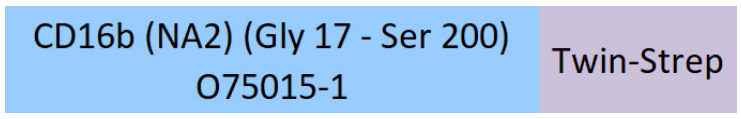
Synonym

Fc gamma RIIIB,CD16b (NA2),FCGR3B,CD16B,FCG3B,FCGR3,FCG3,IGFR3

Source

Human CD16b (NA2) Protein, Strep Tag(CDB-H5283) is expressed from human 293 cells (HEK293). It contains AA Gly 17 - Ser 200 (Accession # O75015-1). Predicted N-terminus: Gly 17

Molecular Characterization



This protein carries a twin strep tag at the C-terminus.

The protein has a calculated MW of 24.2 kDa. The protein migrates as 30-40 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

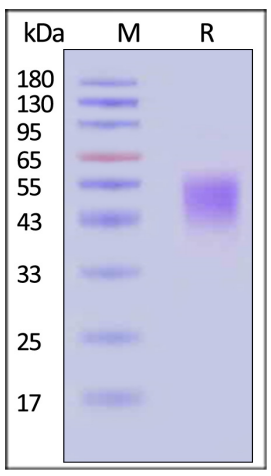
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

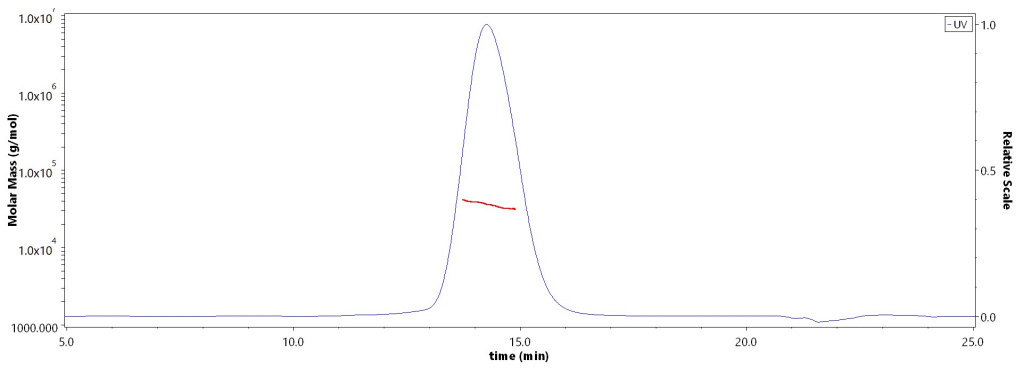
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



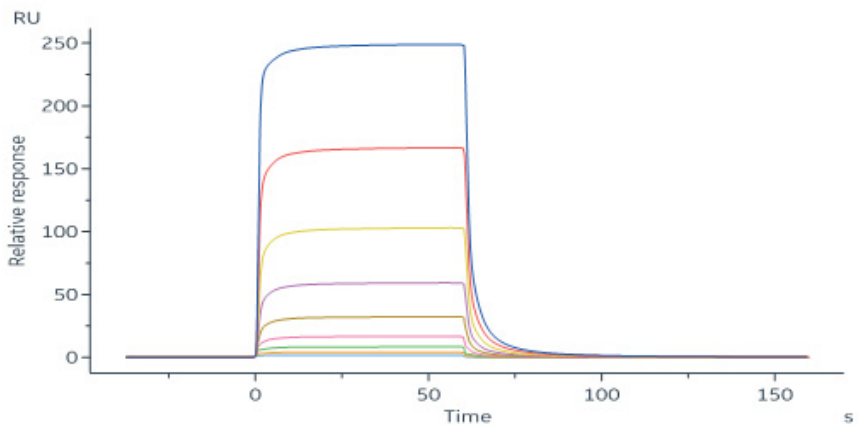
Human CD16b (NA2) Protein, Strep Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

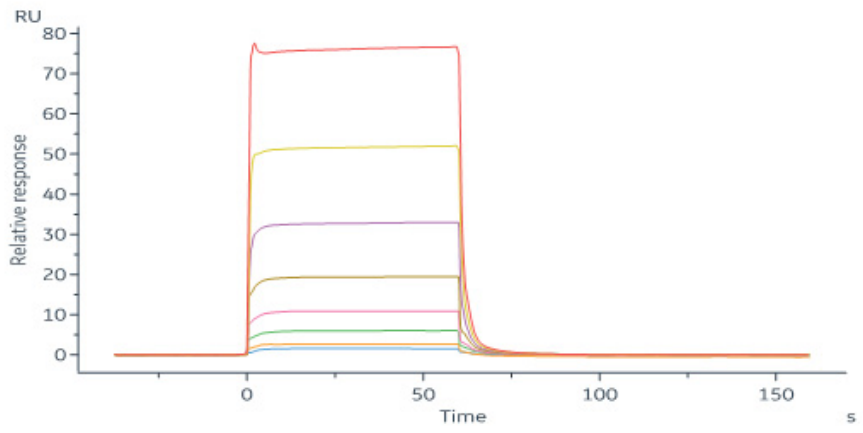


The purity of Human CD16b (NA2) Protein, Strep Tag (Cat. No. CDB-H5283) is more than 95% and the molecular weight of this protein is around 26-38 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Human CD16b (NA2) Protein, Strep Tag (Cat. No. CDB-H5283) immobilized on CM5 Chip can bind Rituximab with an affinity constant of 9.05 μM as determined in a SPR assay (Biacore 8K) (QC tested).



Rituximab immobilized on CM5 Chip can bind Human CD16b (NA2) Protein, Strep Tag (Cat. No. CDB-H5283) with an affinity constant of 8.18 μM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

CD16 is a low affinity Fc receptor, and has been identified as Fc receptors FcγRIIIa (CD16a) and FcγRIIIb (CD16b). These receptors bind to the Fc portion of IgG antibodies. CD16 encoded by two different highly homologous genes in a cell type-specific manner.CD16 is found on the surface of natural killer cells, neutrophil polymorphonuclear leukocytes, monocytes and macrophages.
CD16B is also kown as FCGR3B and FCG3B, is expressed specifically by polymorphonuclear leukocytes (neutrophils) and stimulated eosinophils. CD16B is the low affinity receptor for the Fc region of immunoglobulins gamma. FCGR3B binds complexed or aggregated IgG and also monomeric IgG. Contrary to III-A, FCG3B is not capable to mediate antibody-dependent cytotoxicity and phagocytosis. CD16B may serve as a trap for immune complexes in the peripheral circulation which does not activate neutrophils.