Human IL-3 R Beta / CD131 Protein, Fc Tag (MALS verified)

Catalog # CD1-H5256

Synonym

IL-3 R Beta,CD131,Common beta Chain

Source

Human CD131, Fc Tag(CD1-H5256) is expressed from human 293 cells (HEK293). It contains AA Trp 17 - Trp 443 (Accession # P32927-1). Predicted N-terminus: Trp 17

Molecular Characterization

CD131(Trp 17 - Trp 443) P32927-1	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 75.1 kDa. The protein migrates as 80-100 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.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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

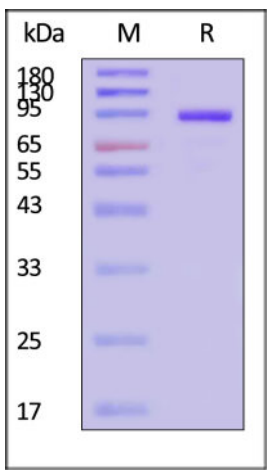
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

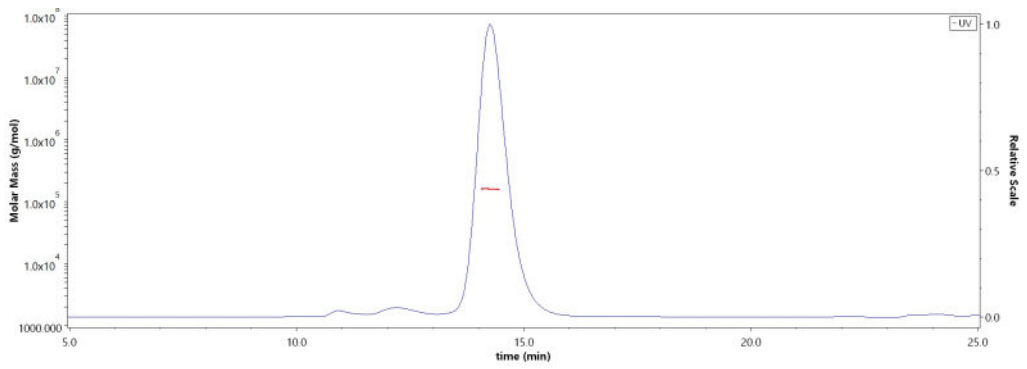
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



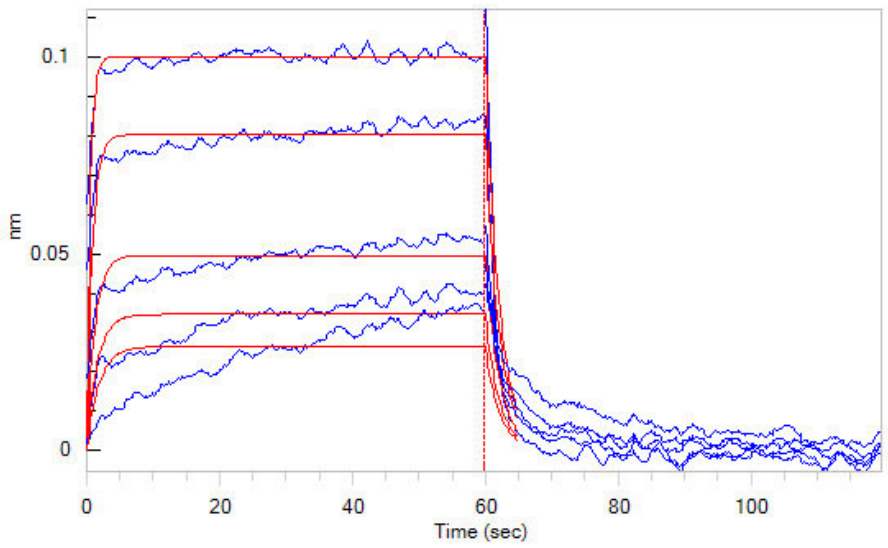
Human CD131, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Human CD131, Fc Tag (Cat. No. CD1-H5256) is more than 85% and the molecular weight of this protein is around 150-175 kDa verified by SEC-MALS.
Report

Bioactivity-BLI



Loaded Human CD131, Fc Tag (Cat. No. CD1-H5256) on Protein A Biosensor, can bind Human GM-CSF, premium grade (Cat. No. GMF-H4214) with an affinity constant of 7.4 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

CD131- the common β Subunit, is a member of the type 1 cytokine
receptor family. There are three major classes of heteroreceptor com□plexes, where the receptor complex utilises a common shared receptor subunit as a signal-transducing chain along with a cytokine specific subunit. These three classes include those which use gp130, those which use γc and those which use the common β subunit, βc(CD131). CD131 is shared by three of the “four-helical bundle” family of cytokines; IL-3, IL-5 and GM-CSF, and forms a receptor complex along with a cytokine specific α chain for each of these cytokines.Moreover, even though each of these cytokines have their own specific α subunit, the co-utilisation of CD131 suggests a common intra-cellular process of both unique and/or overlapping activities on expressing cells.

Clinical and Translational Updates