

Synonym

GM-CSF R alpha,GM-CSF-R-alpha,GMCSFR-alpha,GMR-alpha,CSF2RA,CSF2R,CSF2RY,CDw116,CD116

Source

Human GM-CSF R alpha, Fc Tag(GRA-H5255) is expressed from human 293 cells (HEK293). It contains AA Glu 23 - Gly 320 (Accession # [P15509-1](#)).

Predicted N-terminus: Glu 23

Molecular Characterization

GM-CSF R alpha(Glu 23 - Gly 320) P15509-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 60.9 kDa. The protein migrates as 70-90 kDa 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 Tris with Glycine, Arginine and 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

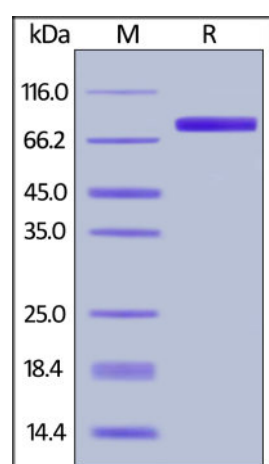
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

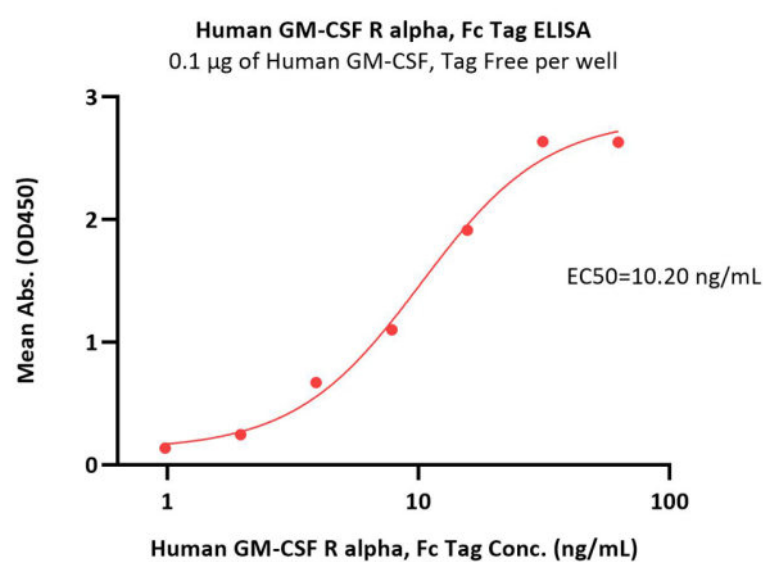
SDS-PAGE



Human GM-CSF R alpha, Fc Tag on SDS-PAGE under reducing (R) condition.

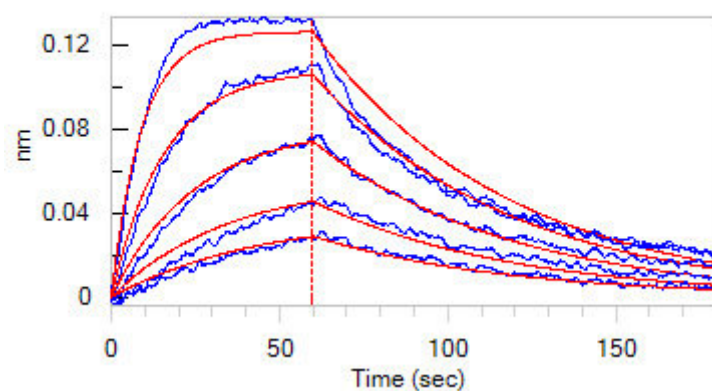
The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Human GM-CSF, premium grade (Cat. No. GMF-H4214) at 1 µg/mL (100 µL/well) can bind Human GM-CSF R alpha, Fc Tag (Cat. No. GRA-H5255) with a linear range of 0.5-16 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human GM-CSF R alpha, Fc Tag (Cat. No. GRA-H5255) on Protein A Biosensor, can bind Human GM-CSF, premium grade (Cat. No. GMF-H4214) with an affinity constant of 9.21 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

GM-CSF R alpha (Granulocyte-macrophage colony-stimulating factor receptor subunit alpha) is also known as CSF2RA, CD116, GMR-alpha. Low affinity receptor for granulocyte-macrophage colony-stimulating factor. Transduces a signal that results in the proliferation, differentiation, and functional activation of hematopoietic cells. Hereditary pulmonary alveolar proteinosis (hPAP) is a rare disorder of pulmonary surfactant accumulation and hypoxemic respiratory failure caused by mutations in CSF2RA (encoding the granulocyte/macrophage colony-stimulating factor [GM-CSF] receptor α -chain [CD116]), which results in reduced GM-CSF-dependent pulmonary surfactant clearance by alveolar macrophages.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.