Human GM-CSF R alpha Protein, His Tag (SPR verified)

Catalog # GRA-H52H7

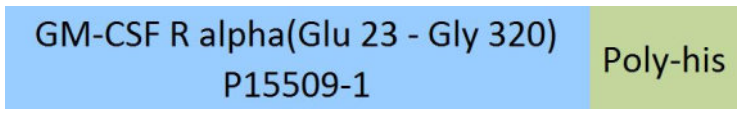
Synonym

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

Source

Human GM-CSF R alpha, His Tag(GRA-H52H7) is expressed from human 293 cells (HEK293). It contains AA Glu 23 - Gly 320 (Accession # P15509-1). Predicted N-terminus: Glu 23

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 36.4 kDa. The protein migrates as 60-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

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

Purity

>95% as determined by SDS-PAGE.

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

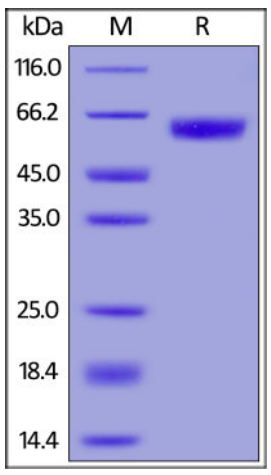
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

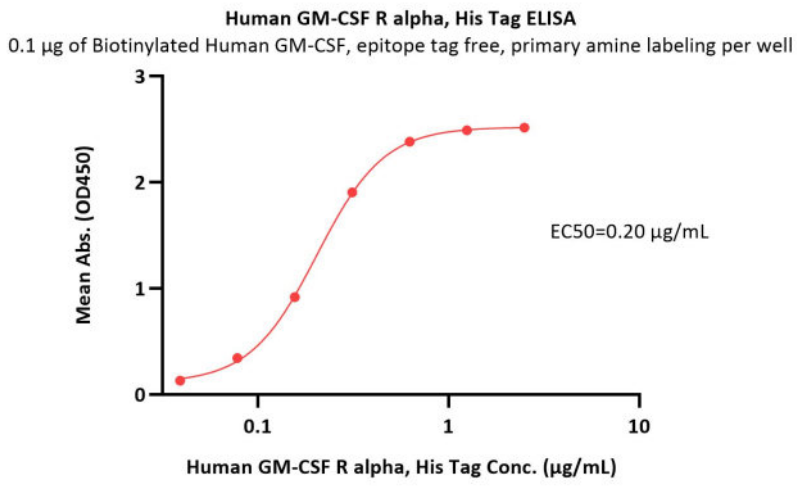
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



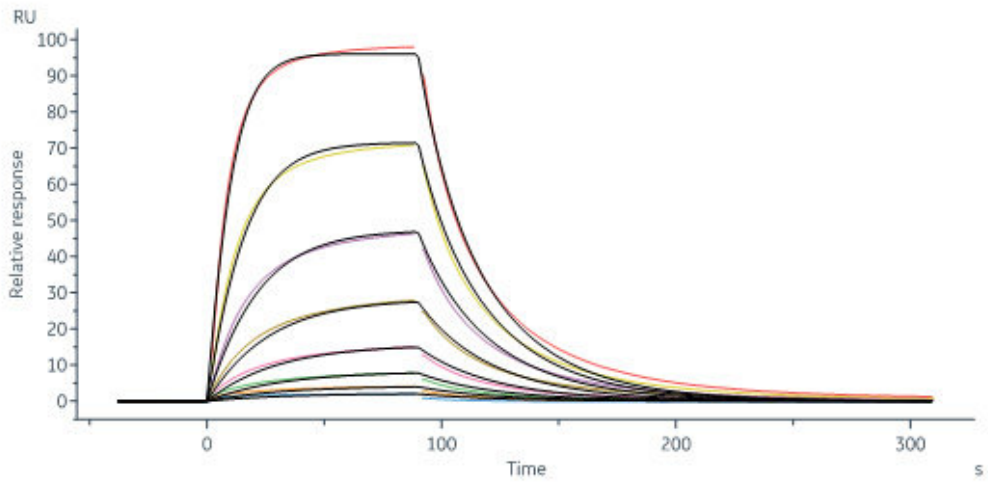
Human GM-CSF R alpha, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



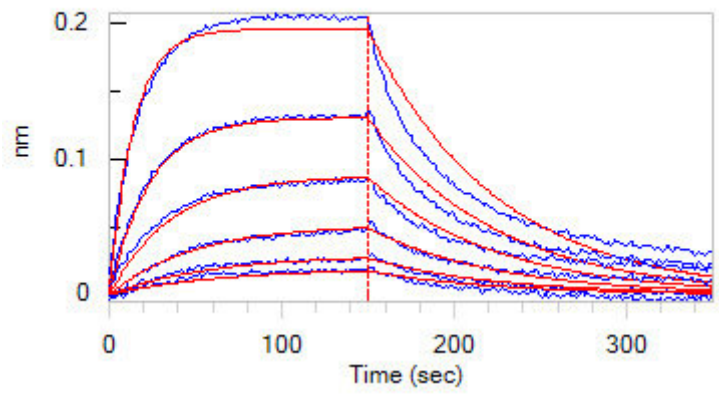
Immobilized Biotinylated Human GM-CSF, epitope tag free, primary amine labeling (Cat. No. GMF-H8214) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.2 μg/well) plate can bind Human GM-CSF R alpha, His Tag (Cat. No. GRA-H52H7) with a linear range of 0.039-0.313 μg/mL (Routinely tested).

Bioactivity-SPR



Human GM-CSF R alpha, His Tag (Cat. No. GRA-H52H7) immobilized on CM5 Chip can bind Human GM-CSF, premium grade (Cat. No. GMF-H4214) with an affinity constant of 65.2 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human GM-CSF, epitope tag free, primary amine labeling (Cat. No. GMF-H8214) on SA Biosensor, can bind Human GM-CSF R alpha,

His Tag (Cat. No. GRA-H52H7) with an affinity constant of 23.1 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.