



## 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

GM-CSF R alpha(Glu 23 - Gly 320)  
P15509-1 Poly-his

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.

## 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

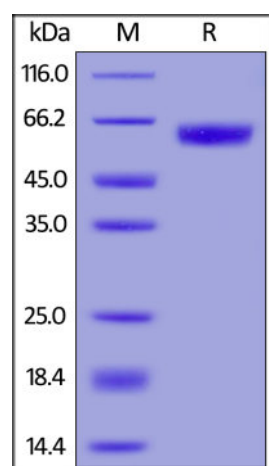
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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

Discounts, Gifts,  
and more!

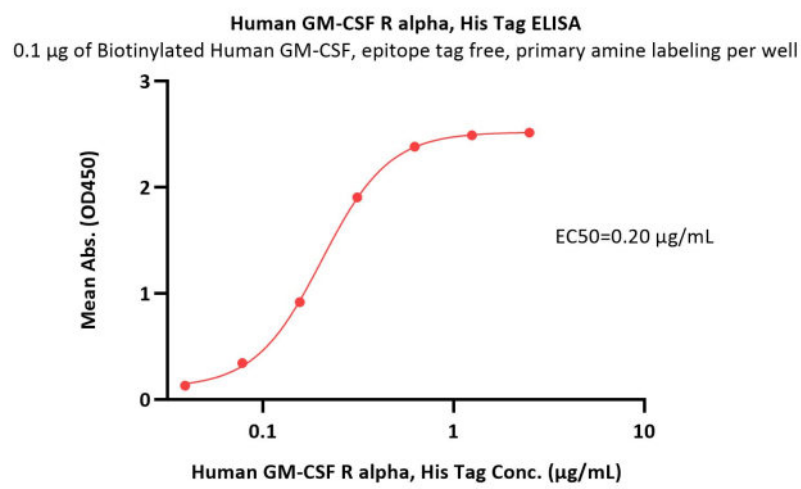


# Human GM-CSF R alpha Protein, His Tag (SPR verified)

Catalog # GRA-H52H7

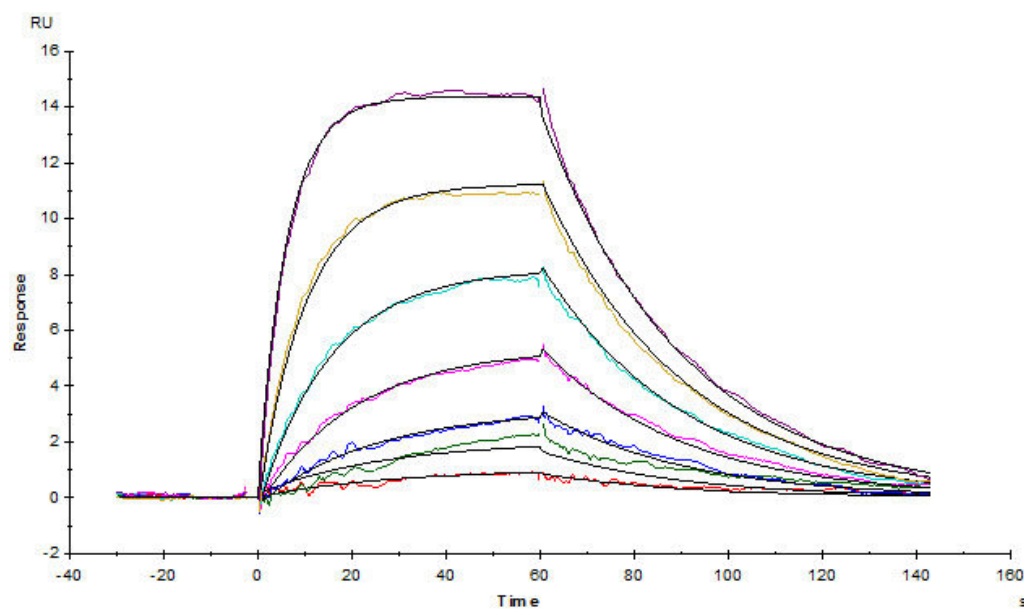


BIOSYSTEMS  
**Acro**



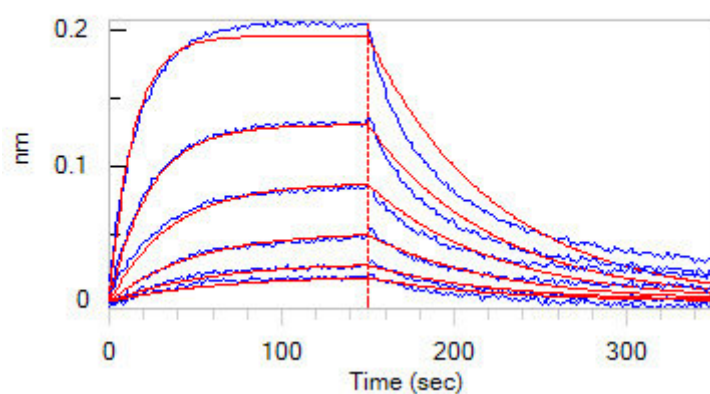
Immobilized Biotinylated Human GM-CSF, epitope tag free, primary amine labeling (Cat. No. GMF-H8214) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.2 µg/well) plate can bind Human GM-CSF R alpha, His Tag (Cat. No. GRA-H52H7) with a linear range of 0.039-0.313 µg/mL (Routinely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

## Bioactivity-SPR



Human GM-CSF R alpha, His Tag (Cat. No. GRA-H52H7) captured on CM5 Chip via anti-His antibody, can bind Human GM-CSF, premium grade (Cat. No. GMF-H4214) with an affinity constant of 16.1 nM as determined in SPR assay (Biacore T200) (QC tested).

## Bioactivity-BLI



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

Catalog # GRA-H52H7



BIOSYSTEMS  
**Acro**

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  $\alpha$ -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](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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