

Human Siglec-14 Protein, His Tag, low endotoxin (MALS verified)

Catalog # SG4-H5223



Synonyms

Siglec-14

Source

Human Siglec-14 Protein, His Tag (SG4-H5223) is expressed from human 293 cells (HEK293). It contains AA Glu 17 - Leu 358 (Accession # [Q08ET2](#)).

Predicted N-terminus: Glu 17

Molecular Characterization

Siglec-14(Glu 17 - Leu 358) Q08ET2	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 39.2 kDa. The protein migrates as 45-55 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

Endotoxin

Less than 0.01 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 20 mM HEPES, 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

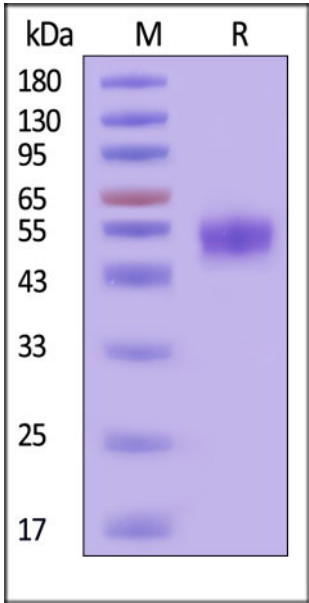
This product is stable after storage at:

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

ACRO Quality Management System

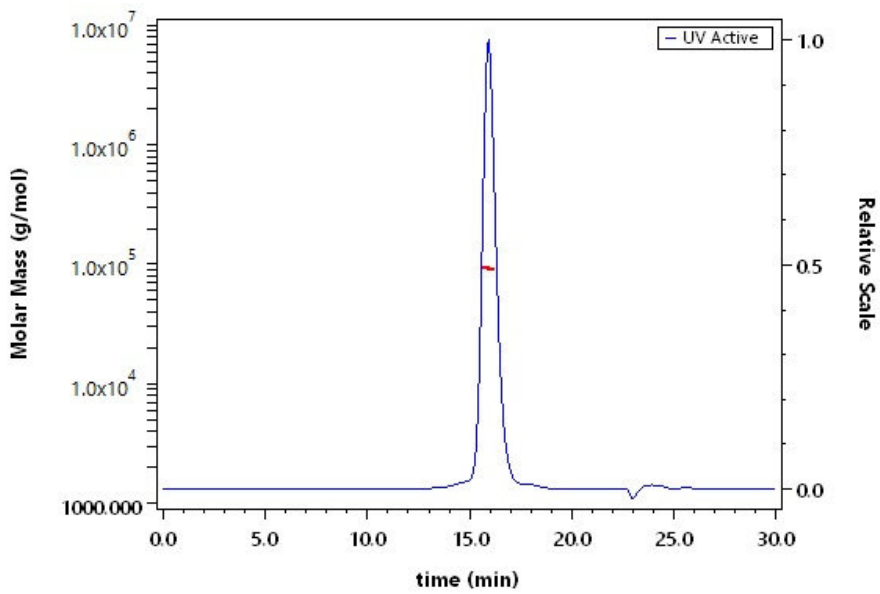
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



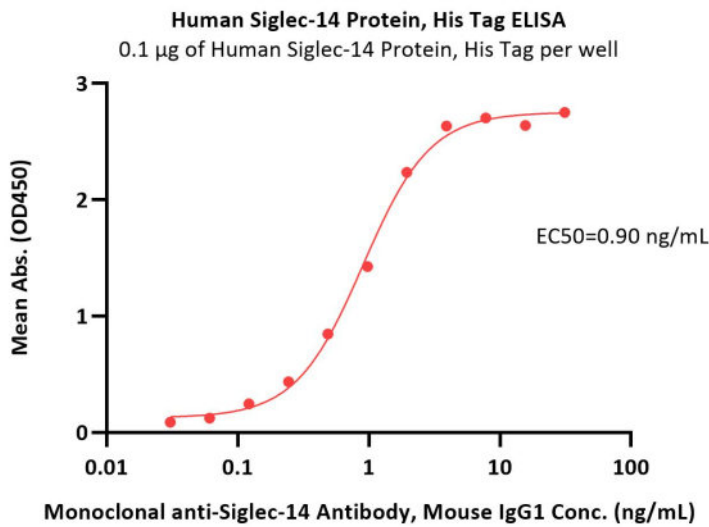
Human Siglec-14 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human Siglec-14 Protein, His Tag (Cat. No. SG4-H5223) is more than 95% and the molecular weight of this protein is around 80-105 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human Siglec-14 Protein, His Tag (Cat. No. SG4-H5223) at 1 µg/mL (100 µL/well) can bind Monoclonal anti-Siglec-14 Antibody, Mouse IgG1 with a linear range of 0.03-2 ng/mL (QC tested).

Background

Siglec-14 (Sialic acid-binding ig-like lectin 14) is a type I transmembrane protein mainly expressed on myeloid cells. It forms an activating/inhibitory "paired receptor" pair with the inhibitory receptor Siglec-5. Through an arginine residue in its transmembrane region, Siglec-14 associates with the adaptor protein DAP12. Upon activation, the ITAM motif of DAP12 recruits Syk kinase and initiates pro-inflammatory signaling. A functional null polymorphism of the SIGLEC14 gene exists in human populations; this loss of function is associated with reduced risk of acute exacerbation of chronic obstructive pulmonary disease (COPD) and decreased susceptibility to tuberculous meningitis. Siglec-14 plays important regulatory roles in pathogen recognition and tumor immunity.



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