Biotinylated Human Insulin R / CD220 (28-944) Protein, His,Avitag™ (MALS & SPR verified)

Catalog # INR-H82E6

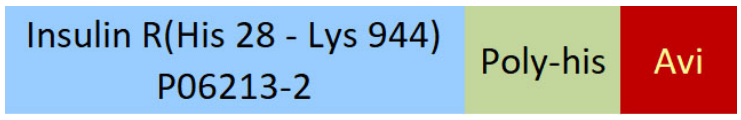
Synonym

INSR,Insulin receptor,IR,CD220

Source

Biotinylated Human Insulin R (28-944) Protein, His,Avitag(INR-H82E6) is expressed from human 293 cells (HEK293). It contains AA His 28 - Lys 944 (Accession # P06213-2).
Predicted N-terminus: His 28

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 108.2 kDa. The protein migrates as 115-130 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% 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

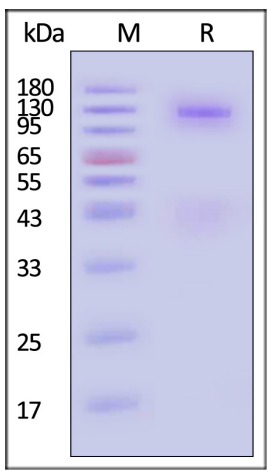
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

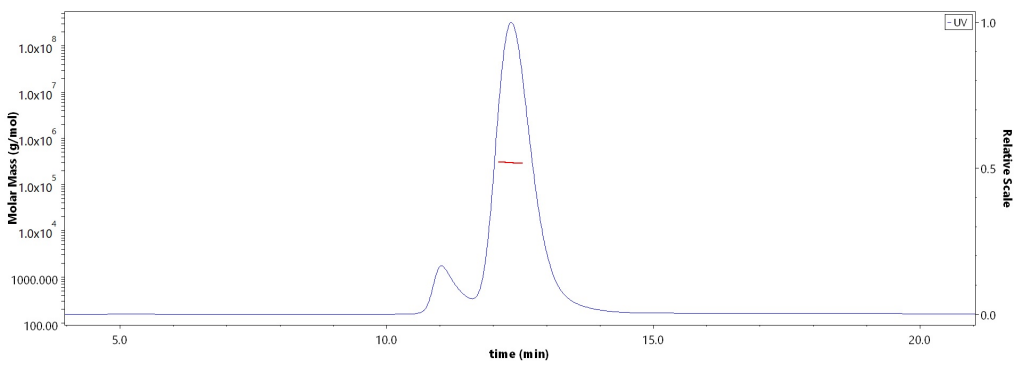
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



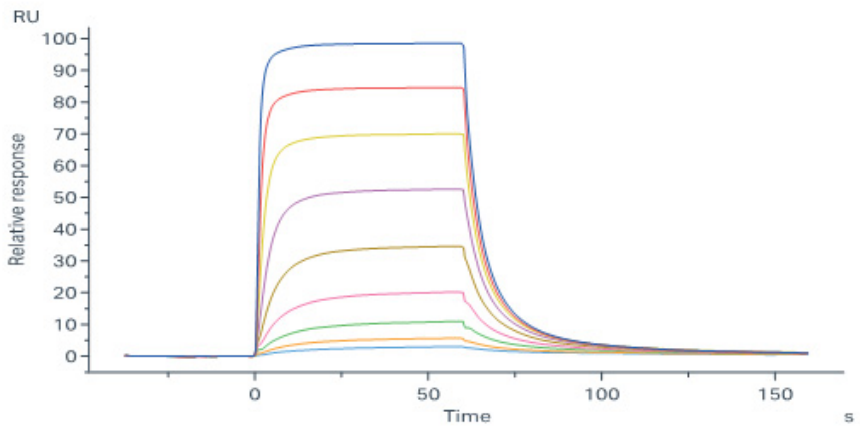
Biotinylated Human Insulin R (28-944) Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Biotinylated Human Insulin R (28-944) Protein, His,Avitag (Cat. No. INR-H82E6) is more than 80% and the molecular weight of this protein is around 275-315 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Biotinylated Human Insulin R (28-944) Protein, His,Avitag (Cat. No. INR-H82E6) immobilized on SA Chip can bind Insulin with an affinity constant of 35.6 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Insulin receptor (INSR) is also known as CD antigen CD220, which can be cleaved into the following 2 chains: Insulin receptor subunit alpha and Insulin receptor subunit beta. INSR is a tetramer of 2 alpha and 2 beta chains linked by disulfide bonds. The alpha chains carry the insulin-binding regions, while the beta chains carry the kinase domain. Forms a hybrid receptor with IGF1R, the hybrid is a tetramer consisting of 1 alpha chain and 1 beta chain of INSR and 1 alpha chain and 1 beta chain of IGF1R. In addition to binding insulin, the insulin receptor can bind insulin-like growth factors (IGFI and IGFII). Isoform Short of INSR has a higher affinity for IGFII binding. When present in a hybrid receptor with IGF1R, INSR binds IGF1.