



INSR,Insulin receptor,IR,CD220

#### Source

Biotinylated Dog Insulin R (28-956) Protein, His, Avitag(INR-D82E3) is expressed from human 293 cells (HEK293). It contains AA His 28 - Ile 956 (Accession # <u>A0A8I3PWD4</u>).

Predicted N-terminus: His 28

# Molecular Characterization

Insulin R(His 28 - Ile 956) A0A8I3PWD4



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

The protein has a calculated MW of 109.2 kDa. The protein migrates as 110-130 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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  $\mu m$  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

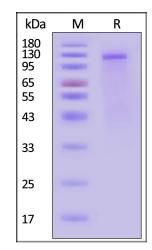
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 Dog Insulin R (28-956) 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 <u>Star Ribbon Pre-stained Protein Marker</u>).

## Background



## Biotinylated Dog Insulin R / CD220 (28-956) Protein, His,Avitag™





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.

