# Mouse IGF-I R / IGF-1 R Protein, Fc Tag

Catalog # IGR-M5253

## Synonym

IGF-I R / IGF-1 R

## Source

Mouse IGF-I R Protein, Fc Tag(IGR-M5253) is expressed from human 293 cells (HEK293). It contains AA Glu 31 - His 936 (Accession # Q60751-1).
Predicted N-terminus: Glu 31

## Molecular Characterization

| IGF-I R(Glu 31 - His 936)<br>Q60751-1 | Fc(Pro 100 - Lys 330)<br>P01857 |
|---|---|

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 130.1 kDa. The protein migrates as 65-80 kDa,95-120 kDa and 160-180 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

## 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

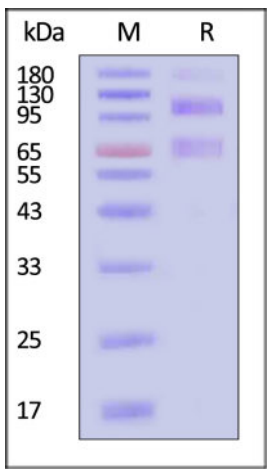
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

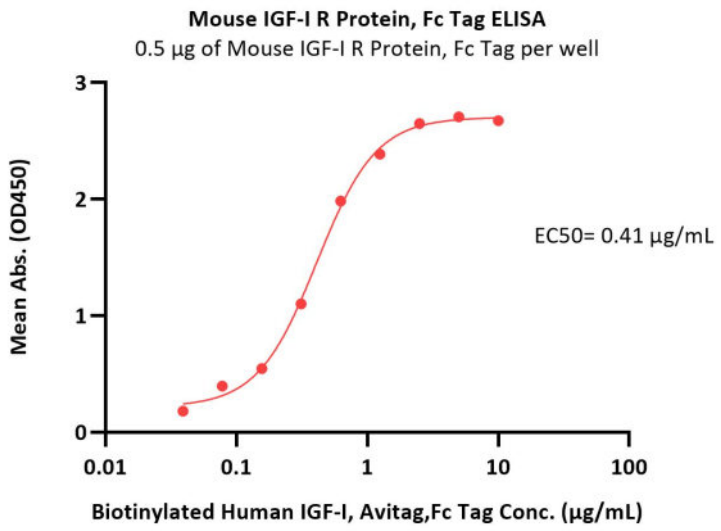
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE




Mouse IGF-I R Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

## Bioactivity-ELISA




Immobilized Mouse IGF-I R Protein, Fc Tag (Cat. No. IGR-M5253) at 5 μg/mL (100 μL/well) can bind Biotinylated Human IGF-I, Avitag,Fc Tag (Cat. No. IG1-H82F7) with a linear range of 0.039-1.25 μg/mL (QC tested).

## Background

The Insulin-like Growth Factor 1 Receptor (IGF1) is also known as CD221, JTK13. and is a transmembrane receptor that is activated by IGF-1 and by the related growth factor IGF-2. It belongs to the large class of tyrosine kinase receptors. This receptor mediates the effects of IGF-1, which is a polypeptide protein hormone similar in molecular structure to insulin. IGF1R is make up of two alpha subunits and two beta subunits ,the Both the α and β subunits are synthesized from a single mRNA precursor. The precursor is then glycosylated, proteolytically cleaved, and crosslinked by cysteine bonds to form a functional transmembrane αβ chain.The α chains are located extracellularly while the β subunit spans the membrane and are responsible for intracellular signal transduction upon ligand stimulation. IGF1R have a binding site for ATP, which is used to provide the phosphates for autophosphorylation. There is a 60% homology between IGF1R and the insulin receptor. In response to ligand binding, the α chains induce the tyrosine autophosphorylation of the β chains. This event triggers a cascade of intracellular signaling that, while somewhat cell type specific, often promotes cell survival and cell proliferation.