Datasheet for ABIN2181260

IGF1R Protein (AA 31-932) (His tag)

3 Images

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Overview

Quantity:	100 µg
Target:	IGF1R
Protein Characteristics:	AA 31-932
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This IGF1R protein is labelled with His tag.

Product Details

Sequence:	AA 31-932
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 104 kDa (single chain), 81 kDa (α subunit) and 23 kDa (β subunit). The protein migrates as 120 kDa, 81 kDa and 35 kDa under reducing (R) condition (SDS-PAGE).
Purity:	>90 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.
Biological Activity Comment:	Biological Activity: Measured by its ability to bind human IGF-I in a functional ELISA.

Target Details

Target:	IGF1R
Alternative Name:	IGF-I R (IGF1R Products)
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.
Molecular Weight:	81.0 kDa, 23.8 kDa
NCBI Accession:	NP_000866
UniProt:	P08069
Pathways:	RTK Signaling, Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Autophagy

Application Details

Restrictions:	For Research Use only

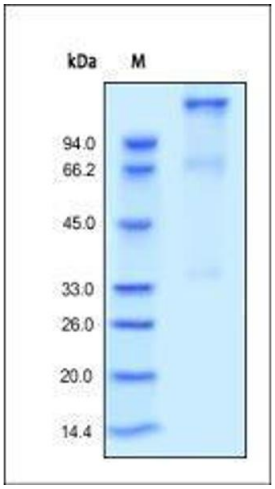
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After

Handling

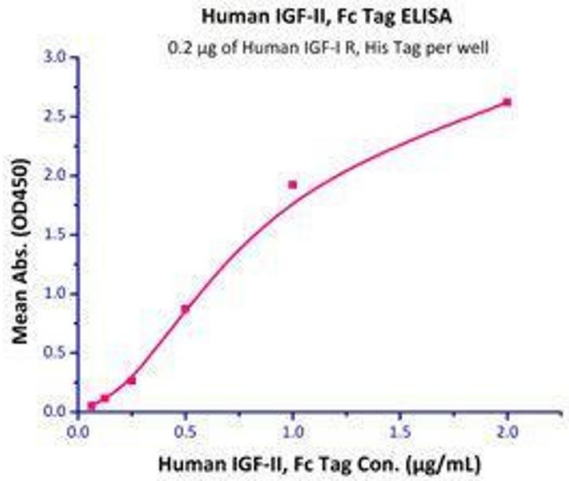
reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).

Images



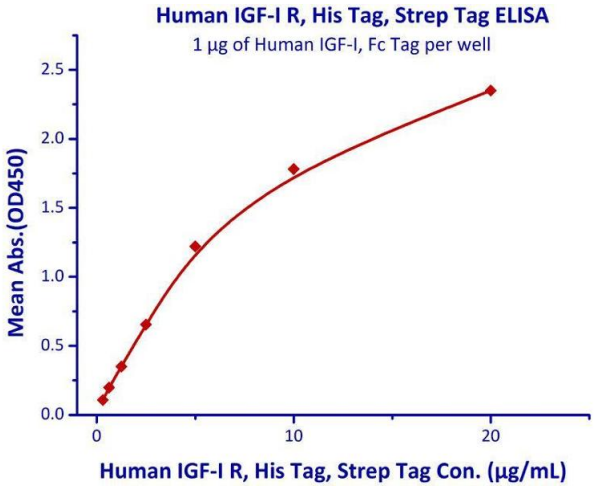
SDS-PAGE

Image 1. Human IGF-I R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Human IGF-I R, His Tag (Cat# IGR-H5229) at 2μg/mL (100 μl/well),can bind Human IGF-II, Fc Tag (Cat# IG2-H4260) with a linear range of 0.06-1 μg/mL.



Binding Studies

Image 3. Immobilized Human IGF-I, Fc Tag (Cat# IG1-H4269) at 5μg/mL (100 μl/well),can bind Human IGF-I R, His Tag (Cat# IGR-H5229) with a linear range of 0.08-2.5 μg/mL.