

Datasheet for ABIN7013175

IGF1R Protein (AA 31-932) (His tag,AVI tag,Biotin)[Go to Product page](#)

Overview

Quantity:	200 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,AVI tag,Biotin.

Product Details

Purpose:	Biotinylated Human IGF-I R / CD221 Protein, His,Avitag™
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Purity:	>90 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

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

Target Details

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 made 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 $\alpha\beta$ 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:	106.6 kDa
-------------------	-----------

NCBI Accession:	NP_000866
-----------------	---------------------------

Pathways:	RTK Signaling , Regulation of Hormone Metabolic Process , Regulation of Hormone Biosynthetic Process , Autophagy
-----------	--

Application Details

Comment:	Ready-to-use Avitag™ biotinylated protein: The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.
----------	--

This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions:	For Research Use only
---------------	-----------------------

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Storage:	-20 °C