Datasheet for ABIN7317661

Insulin Receptor Protein (INSR) (His tag)

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Overview

Quantity:	100 µg
Target:	Insulin Receptor (INSR)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Insulin Receptor protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Insulin Receptor/INSR Protein (short isoform, His Tag)(Active)
Sequence:	Met 1-Lys 944
Characteristics:	A DNA sequence encoding the human INSR isoform short (NP_001073285.1) extracellular domain (Met 1-Lys 944) was expressed, fused with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to bind human Insulin in a functional ELISA.

Target Details

Target:	Insulin Receptor (INSR)
Alternative Name:	Insulin Receptor/INSR (INSR Products)

Target Details

Background:	Background: INSR (Insulin receptor), also known as CD220, is a transmembrane receptor that is activated by insulin. INSR belongs to theprotein kinase superfamily, and exists as a tetramer consisting of two alpha subunits and two beta subunits linked by disulfide bonds. The alpha and beta subunits are encoded by a single INSR gene, and the beta subunits pass through the cellular membrane. As the receptor for insulin with tyrosine-protein kinase activity, INSR associates with downstream mediators upon binding to insulin, including IRS1 (insulin receptor substrate 1) and phosphatidylinositol 3'-kinase (PI3K). IRS-1 binding and phosphorylation eventually leads to an increase in the high affinity glucose transporter (Glut4) molecules on the outer membrane of insulin-responsive tissues. INSR isoform long and isoform short are expressed in the peripheral nerve, kidney, liver, striated muscle, fibroblasts and skin, and is found as a hybrid receptor with IGF1R which also binds IGF1 in muscle, heart, kidney, adipose tissue, skeletal muscle, hepatoma, fibrobasts, spleen and placenta. Defects in Insulin Receptor/INSR are the cause of Rabson-Mendenhall syndrome (Mendenhall syndrome), insulin resistance (Ins resistance), leprechaunism (Donohue syndrome), and familial hyperinsulinemic hypoglycemia 5 (HHF5). It may also be associated with noninsulin-dependent diabetes mellitus (NIDDM). Synonym: CD220,HHF5,Insulin Receptor
Molecular Weight:	106 (83+23) kDa
NCBI Accession:	NP_001073285
Pathways:	NF-kappaB Signaling, RTK Signaling, AMPK Signaling, Carbohydrate Homeostasis, Regulation of Cell Size, Regulation of Carbohydrate Metabolic Process, Growth Factor Binding, Negative Regulation of Transporter Activity

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Handling

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.