

## Active Recombinant Human InsR, GST-tagged

Cat. No. INSR-1416H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human InsR (1011-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>ProteinLength</b>	1011 aa-end
<b>Description</b>	<p>InsR is the insulin receptor tyrosine kinase that is involved in insulin signaling. InsR is post-translationally cleaved into two chains, <math>\alpha</math> and <math>\beta</math>? that are covalently linked. Binding of insulin to the InsR stimulates glucose uptake. Insulin receptor signaling helps to maintain fuel homeostasis and prevent diabetes. Studies have shown that a conditional knockout of insulin receptor substrate 2 (IRS2) in mouse pancreas <math>\beta</math> cells and parts of the brain--including the hypothalamus--increased appetite, lean and fat body mass, linear growth, and insulin resistance that progressed to diabetes. InsR signaling also increases the regeneration of adult <math>\beta</math> cells and the central control of nutrient homeostasis.</p>
<b>Form</b>	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
<b>Bio-activity</b>	2683 nmol/min/mg
<b>Molecular Mass</b>	~70 kDa

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<b>Purity</b>	>80%
<b>Applications</b>	Kinase Assay, Western Blot
<b>Storage</b>	Store at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
<b>Concentration</b>	0.1 $\mu\text{g}/\mu\text{l}$

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">INSR insulin receptor [ Homo sapiens ]</a>
<b>Official Symbol</b>	INSR
<b>Synonyms</b>	INSR; insulin receptor; CD220; IR; HHF5;
<b>Gene ID</b>	<a href="#">3643</a>
<b>mRNA Refseq</b>	<a href="#">NM_000208</a>
<b>Protein Refseq</b>	<a href="#">NP_000199</a>
<b>MIM</b>	<a href="#">147670</a>
<b>UniProt ID</b>	<a href="#">P06213</a>
<b>Chromosome Location</b>	19p13.3-p13.2
<b>Pathway</b>	Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem;

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Aldosterone-regulated sodium reabsorption, conserved biosystem; IRS activation, organism-specific biosystem; IRS-mediated signalling, organism-specific biosystem; IRS-related events, organism-specific biosystem;

**Function**

3-phosphoinositide-dependent protein kinase binding; ATP binding; GTP binding; PTB domain binding; SH2 domain binding; insulin binding; insulin binding; insulin binding; insulin receptor substrate binding; insulin-activated receptor activity; insulin-like growth factor I binding; insulin-like growth factor II binding; insulin-like growth factor receptor binding; lipoic acid binding; nucleotide binding; phosphatidylinositol 3-kinase binding; protein binding; protein complex binding; protein domain specific binding; protein phosphatase binding; protein tyrosine kinase activity; protein tyrosine kinase activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity;

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