

## Recombinant Human INSR protein, His-tagged

Cat. No. INSR-29H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human INSR (His28-Lys944) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	His28-Lys944
<b>Description</b>	<p>Insulin receptor (INSR) is also known as CD antigen CD220, which can be cleaved into the following 2 chains: Insulin receptor subunit alpha and Insulin receptor subunit beta. INSR is a tetramer of 2 alpha and 2 beta chains linked by disulfide bonds. The alpha chains carry the insulin-binding regions, while the beta chains carry the kinase domain. Forms a hybrid receptor with IGF1R, the hybrid is a tetramer consisting of 1 alpha chain and 1 beta chain of INSR and 1 alpha chain and 1 beta chain of IGF1R. In addition to binding insulin, the insulin receptor can bind insulin-like growth factors (IGFI and IGFI). Isoform Short of INSR has a higher affinity for IGFI binding. When present in a hybrid receptor with IGF1R, INSR binds IGFI.</p>
<b>Predicted N Terminal</b>	His28
<b>Form</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.
<b>Molecular Mass</b>	The protein has a calculated MW of 106.5 kDa. The protein migrates as 115-125 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

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<b>Endotoxin</b>	Less than 1.0 EU per µg by the LAL method.
<b>Purity</b>	>90% as determined by SDS-PAGE.
<b>Storage</b>	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;          -70 centigrade for 3 months under sterile conditions after reconstitution.</p>
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

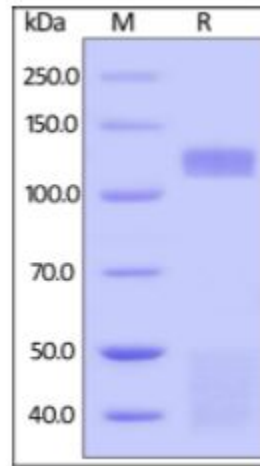
<b>Gene Name</b>	<a href="#">INSR</a>
<b>Official Symbol</b>	<a href="#">INSR</a>
<b>Synonyms</b>	INSR; insulin receptor; CD220; IR; HHF5
<b>Gene ID</b>	<a href="#">3643</a>
<b>mRNA Refseq</b>	<a href="#">NM_000208</a>
<b>Protein Refseq</b>	<a href="#">NP_000199</a>
<b>MIM</b>	<a href="#">147670</a>
<b>UniProt ID</b>	<a href="#">P06213</a>

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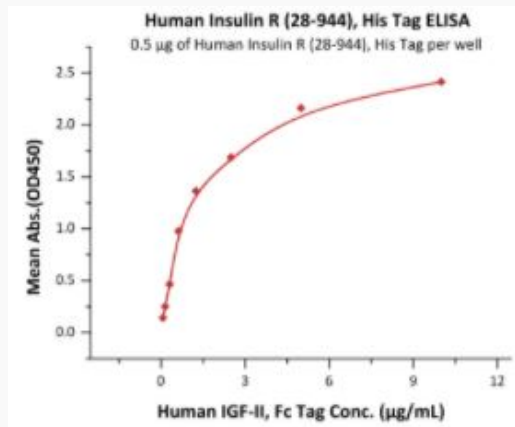
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**SDS-PAGE of INSR-29H**



Human Insulin R (28-944), 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 90%.

**Bioactivity-ELISA of INSR-29H**



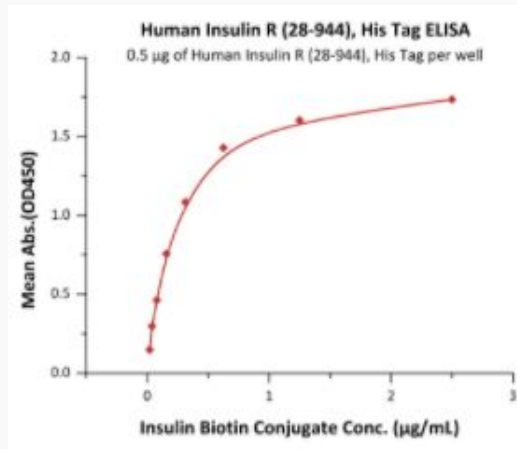
Immobilized Human Insulin R (28-944), His Tag at 5 µg/mL (100 µL/well) can bind Human IGF-II, Fc Tag with a linear range of 0.078-1.25 µg/mL (QC tested).

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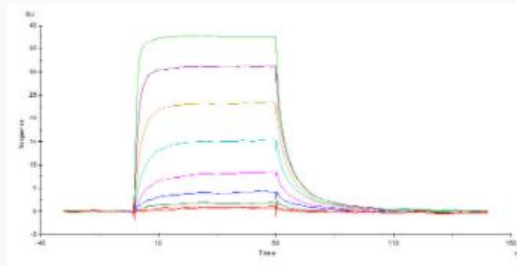
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### Bioactivity-ELISA



Immobilized Human Insulin R (28-944), His Tag at 5 µg/mL (100 µL/well) can bind Insulin Biotin Conjugate with a linear range of 0.02-0.313 µg/mL (Routinely tested).

### Bioactivity-SPR of INSR-29H



Human Insulin R (28-944), His Tag captured on CM5 chip via anti-His antibody, can bind Human Insulin with an affinity constant of 249 nM as determined in a SPR assay (Biacore T200) (QC tested).

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