

## Active Recombinant Human INS, His-tagged

Cat. No. INS-88H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human INS(Phe25-Asn110), fused with an N-terminal Met, 6-His tag and Lys, was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	25-110 a.a.
<b>Description</b>	After removal of the precursor signal peptide, proinsulin is post-translationally cleaved into three peptides: the B chain and A chain peptides, which are covalently linked via two disulfide bonds to form insulin, and C-peptide. Binding of insulin to the insulin receptor (INSR) stimulates glucose uptake. A multitude of mutant alleles with phenotypic effects have been identified. There is a read-through gene, INS-IGF2, which overlaps with this gene at the 5' region and with the IGF2 gene at the 3' region. Alternative splicing results in multiple transcript variants.
<b>Predicted N Terminal</b>	Met
<b>Form</b>	Lyophilized from a 0.2 µm filtered solution in PBS.
<b>Bio-activity</b>	Measured in a serum-free cell proliferation assay using MCF 7 human breast cancer cells.
<b>Molecular Mass</b>	Predicted Molecular Mass: 10.5 kDaSDS-PAGE: 9 kDa, reducing conditions

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<b>Endotoxin</b>	< 1.0 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Storage</b>	Avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
<b>Reconstitution</b>	Reconstitute at 100 µg/mL in sterile PBS.

## GENE INFORMATION

<b>Gene Name</b>	INS insulin [ Homo sapiens (human) ]
<b>Official Symbol</b>	INS
<b>Synonyms</b>	INS; ILPR; IRDN; IDDM1; IDDM2; MODY10; insulin; proinsulin; preproinsulin; insulin-dependent diabetes mellitus 2
<b>Gene ID</b>	3630
<b>mRNA Refseq</b>	NM_000207
<b>Protein Refseq</b>	NP_000198
<b>MIM</b>	176730
<b>UniProt ID</b>	P01308
<b>Chromosome Location</b>	11p15.5

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<b>Pathway</b>	AGE/RAGE pathway; Aldosterone-regulated sodium reabsorption; Cardiac Progenitor Differentiation
<b>Function</b>	hormone activity; identical protein binding; insulin-like growth factor receptor binding

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