Active Recombinant Human INS, His-tagged

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

SPECIFICATION

Product Overview	Recombinant Human INS(Phe25-Asn110), fused with an N-terminal Met, 6-His tag and Lys, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	25-110 a.a.
Description	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.
Predicted N Terminal	Met
Form	Lyophilized from a 0.2 μm filtered solution in PBS.
Bio-activity	Measured in a serum-free cell proliferation assay using MCF 7 human breast cancer cells.
Molecular Mass	Predicted Molecular Mass: 10.5 kDaSDS-PAGE: 9 kDa, reducing conditions

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Endotoxin	< 1.0 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	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.
Reconstitution	Reconstitute at 100 μg/mL in sterile PBS.

GENE INFORMATION

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

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

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