

Active Recombinant Human INS Protein

Cat. No. INS-53H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Insulin is a two chain polypeptide containing 51 amino acids and has a MW = 5.8 kDa
Species	Human
Source	Yeast
Description	This gene encodes insulin, a peptide hormone that plays a vital role in the regulation of carbohydrate and lipid metabolism. 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, including insulin-dependent diabetes mellitus, permanent neonatal diabetes mellitus, maturity-onset diabetes of the young type 10 and hyperproinsulinemia. 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.
Bio-activity	29 units/mg
Molecular Mass	5.8 kDa
Endotoxin	< 1EU/mg
Purity	>99.0% as determined by SEC-HPLC and SDS-PAGE.

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Storage

Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution

Centrifuge vial prior to opening. Add sterile 0.01 N HCL to the vial to fully solubilize the protein to a concentration not less than 1 mg/ml, to be further diluted to the working concentration.

GENE INFORMATION
Gene Name

INS insulin [Homo sapiens (human)]

Official Symbol

INS

Synonyms

IDDM; ILPR; IRDN; IDDM1; IDDM2; PNDM4; MODY10

Gene ID

3630

mRNA Refseq

NM_000207.3

Protein Refseq

NP_000198.1

MIM

176730

UniProt ID

P01308

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