

Recombinant Human INS therapeutic protein(Insulin lispro)

Cat. No. Insulin-P056H Lot. No. (See product label)

SPECIFICATION

Product Overview Insulin lispro is a recombinant human insulin analogue produced in a specialized laboratory strain of Escherischia coli. Plasmid DNA transfected into the bacteria encodes for an analogue of human insulin that has a lysine at residue B28 and proline at B29; these residues are reversed in endogenous human insulin. Reversal of these amino acid residues produces a rapid-acting insulin analogue.

Species Human

Source E.coli

ProteinLength 32aa

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.

Molecular Mass 60.6 Kda

Purity >95%

Storage Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot

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and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Alias INS; ILPR; IRDN; IDDM2; Insulin lispro

GENE INFORMATION

Gene Name INS insulin [Homo sapiens]

Official Symbol INS

Synonyms INS; insulin; proinsulin; ILPR; IRDN; IDDM2; MODY10;

Gene ID 3630

mRNA Refseq NM_000207

Protein Refseq NP_000198

UniProt ID P01308

Chromosome Location 11p15.5

Pathway ATF-2 transcription factor network, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, conserved biosystem; Amyloids, organism-specific biosystem; Arf6 trafficking events, organism-specific biosystem; Developmental Biology, organism-specific biosystem;

Function hormone activity; hormone activity; hormone activity; insulin receptor binding; insulin

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receptor binding; insulin-like growth factor receptor binding; protein binding;

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