

Recombinant Human INS therapeutic protein(Insulin glulisine)

Cat. No. Insulin-P061H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Insulin therapeutic protein is a biosynthetic, rapid-acting human insulin analogue produced in a non-pathogenic laboratory strain of <i>Escherichia coli</i> (K12). This recombinant hormone differs from native human insulin in that the amino acid arginine at position B3 is replaced by lysine and the lysine at position B29 is replaced by glutamic acid. These structural modifications decrease hexamer formation, stabilize insulin glulisine monomers and increase the rate of absorption and onset of action compared to human insulin.
Species	Human
Source	E.coli
Description	Insulin glulisine is a biosynthetic, rapid-acting human insulin analogue produced in a non-pathogenic laboratory strain of <i>Escherichia coli</i> (K12). This recombinant hormone differs from native human insulin in that the amino acid arginine at position B3 is replaced by lysine and the lysine at position B29 is replaced by glutamic acid. These structural modifications decrease hexamer formation, stabilize insulin glulisine monomers and increase the rate of absorption and onset of action compared to human insulin.
AA Sequence	>A chainGIVEQCCTSICSLYQLENYCN>B chainFVKQHLCSHLVEALYLVCGERGEFYTPET
Endotoxin	< 1.0 EU per µg of the protein

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Purity	>95%
Storage	Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Alias	INS; ILPR; IRDN; IDDM2; Insulin glulisine
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-

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	specific biosystem; Developmental Biology, organism-specific biosystem;
Function	hormone activity; hormone activity; hormone activity; insulin receptor binding; insulin receptor binding; insulin-like growth factor receptor binding; protein binding;

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