

Active Recombinant Human Insulin

Cat. No. INS-256H Lot. No. (See product label)

SPECIFICATION

Product Overview INS Human Recombinant produced in Yeast is a two chain, glycosylated polypeptide chain containing 51 amino acids and having a molecular mass of 5807 Dalton. Zinc content was found to be 0.4%. INS is purified by proprietary chromatographic techniques.

Species S.cerevisiae

Source Human

Description INS decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.

Form The protein was lyophilized from 50mM Sodium Chloride solution.

Purity Greater than 98.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Bio-activity 27 units/mg. INS has been evaluated in cell culture (Human Foreskin Fibroblasts). The effective concentration range for use in defined media is 1-5ug/ml. However, the optimum concentration range for a particular application must be determined by the investigator.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

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Solubility	It is recommended to reconstitute the lyophilized INS in PBS pH-7.5.
Storage	Lyophilized INS should be stored at 4°C. Upon reconstitution INS should be stored at -20°C to -80°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
GENE INFORMATION	
Gene Name	INS insulin [Homo sapiens]
Official Symbol	INS
Synonyms	INS; insulin; LPR; IRDN; IDDM2; MODY10; proinsulin; OTTHUMP00000011161; OTTHUMP00000011162; OTTHUMP00000196036; OTTHUMP00000196038; OTTHUMP00000217519
Gene ID	3630
mRNA Refseq	NM_000207
Protein Refseq	NP_000198
MIM	176730
UniProt ID	P01308
Chromosome Location	11p15.5
Pathway	ATF-2 transcription factor network; ATF-2 transcription factor network; ATF-2 transcription factor network; Amyloids; Arf6 trafficking events; Diabetes pathways;

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Downstream signaling of activated FGFR; Folate Metabolism; IRS activation; IRS-mediated signaling; IRS-related events; Insulin Pathway; Insulin Synthesis and Processing; Insulin signaling pathway; PI-3K cascade

Function

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

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