

Certificate of Analysis

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Product Name: Insulin (human) recombinant, expressed in yeast

Catalog No.: 3435

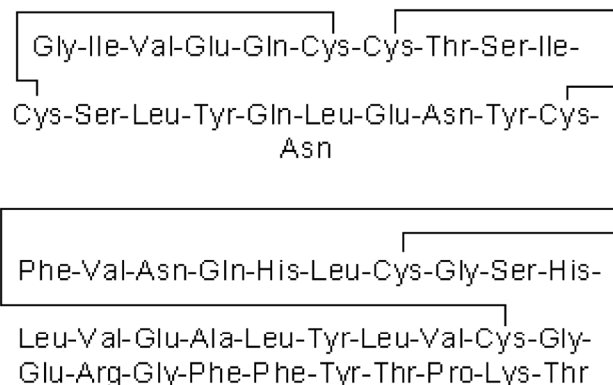
Batch No.: 21

CAS Number: 11061-68-0

EC Number: 234-279-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅₇H₃₈₃N₆₅O₇₇S₆
Batch Molecular Weight: 5807.57
Physical Appearance: White solid
Solubility: Soluble to 10 mg/ml in aq. HCl (pH 2.0 - 2.5)
Storage: Store at -20°C
Peptide Sequence:



2. ANALYTICAL DATA

Activity: 28.7 IU/mg

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 11061-68-0

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Description:

Insulin (human, recombinant, expressed in yeast) is an endogenous insulin receptor agonist ($K_i = 4.85$ nM). Decreases plasma glucose levels, proteolysis, lipolysis and gluconeogenesis and increases glycogen and fatty acid synthesis in vivo.

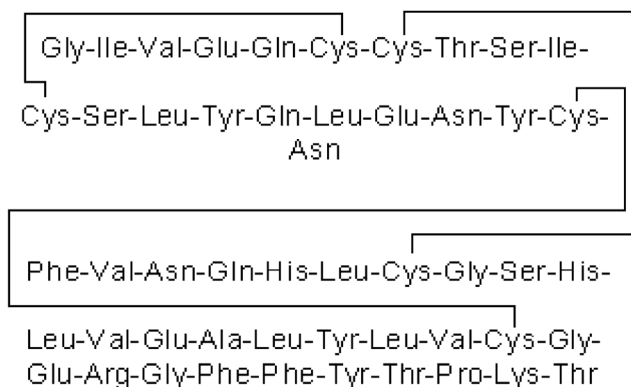
Physical and Chemical Properties:

Batch Molecular Formula: $C_{257}H_{383}N_{65}O_{77}S_6$

Batch Molecular Weight: 5807.57

Physical Appearance: White solid

Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 10 mg/ml in aq. HCl (pH 2.0 - 2.5)

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Leney and Tavare (2009) The molecular basis of Ins-stimulated glucose uptake: signalling, trafficking and potential drug targets. *J.Endocrinol.* **203** 1. PMID: 19389739.

Ou et al (2001) The binding characteristics of Ins-MTX to Ins receptor. *Hua.Xi.Yi.Ke.Da.Xue.Xue.Bao.* **32** 538. PMID: 12528542.

Torlinska et al (2000) Age dependent changes of Ins receptors in rat tissues. *J.Physiol.Pharmacol.* **51** 871. PMID: 11220495.

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