Product Name: Insulin (human) recombinant expressed in yeast

CAS Number: 11061-68-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{257}\text{H}_{383}\text{N}_{65}\text{O}_{77}\text{S}_{6} \)

Batch Molecular Weight: 5807.57

Physical Appearance: White lyophilised solid

Solubility: Soluble to 20 mg/ml in 0.01 M hydrochloric acid

Storage: Store at -20°C

Peptide Sequence:

\[
\text{Gly-Ile-Val-Glu-Gln-Cys-Cys-Thr-Ser-Ile-}
\text{Cys-Ser-Leu-Tyr-Gln-Leu-Glu-Asn-Tyr-Cys-Asn}
\text{Phe-Val-Asn-Gln-His-Leu-Cys-Gly-Ser-His-}
\text{Leu-Val-Glu-Ala-Leu-Tyr-Leu-Val-Cys-Gly-}
\text{Glu-Arg-Gly-Phe-Phe-Tyr-Thr-Pro-Lys-Thr}
\]

2. ANALYTICAL DATA

Activity: 28.4 IU/mg
Product Information

Product Name: Insulin (human) recombinant expressed in yeast
Catalog No.: 3435	Batch No.: 13
EC Number: 234-279-7

Description:
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_{267}H_{383}N_{65}O_{77}S_{6}
Batch Molecular Weight: 5807.57
Physical Appearance: White lyophilised solid

Peptide Sequence:

\[
\begin{align*}
\text{Gly-Ile-Val-Glu-Gln-Cys-Cys-Thr-Ser-Ile-} \\
\text{Cys-Ser-Leu-Tyr-Gln-Leu-Glu-Asn-Tyr-Cys-Asn} \\
\text{Phe-Val-Asn-Gln-His-Leu-Cys-Gly-Ser-His} \\
\text{Leu-Val-Glu-Ala-Leu-Tyr-Leu-Val-Cys-Gly-Glu-Arg-Gly-Phe-Phe-Tyr-Thr-Pro-Lys-Thr}
\end{align*}
\]

Storage: Store at -20°C

Solubility & Usage Info:
Soluble to 20 mg/ml in 0.01 M hydrochloric acid

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 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:
