

Human Insulin / INS Protein

Catalog Number: 11038-HNAY



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IDDM; IDDM1; IDDM2; ILPR; INS; IRDN; MODY10

Protein Construction:

A DNA sequence encoding human insulin B chain (2LGB_B)(Phe1-Lys29) and human insulin A chain (2KXK_A)(Gly1-Asn21) was expressed with a linker AAK.

Source: Human

Expression Host: Yeast

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured in a serum-free cell proliferation assay using MCF77 human breast cancer cells. The ED₅₀ for this effect is typically 0.2-1 µg/mL.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Phe

Molecular Mass:

The recombinant human Insulin consists of 53 amino acids and predicts a molecular mass of 6 KDa. It migrates as an approximately 6 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

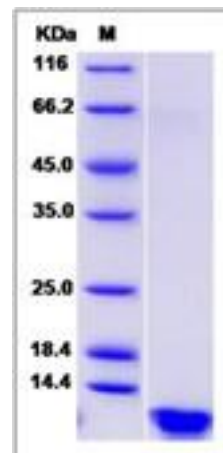
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein 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.

References

3.Veedfald S, Plamboeck A, Deacon C F, *et al.* Cephalic phase secretion of insulin and other enteropancreatic hormones in humans[J]. American Journal of Physiology-Gastrointestinal and Liver Physiology, 2016, 310(1): G43-G51.

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