

# 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 (P01308)(Phe25-Lys53) and human insulin A chain (P01308)(Gly90-Asn110) 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 MCF7 human breast cancer cells. The ED<sub>50</sub> 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 63 amino acids and predicts a molecular mass of 7.1 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:

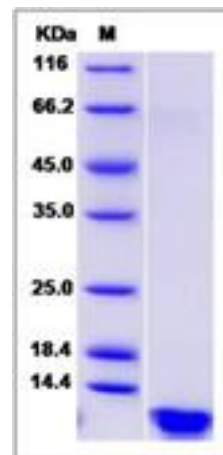
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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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