

# Native Bovine Insulin

**Cat. No.** INS-5435B    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Native Bovine INS is prepared from Bovine pancreas.
<b>Species</b>	Bovine
<b>Source</b>	Bovine pancreas
<b>Description</b>	INS is a polypeptide hormone produced in the pancreatic islets of Langerhans that has a molecular weight of ~5800 Da. INS primarily regulates the uptake and storage of glucose in cellular systems. It also plays a related role in the metabolism of certain amino acids and fatty acids. Bovine INS is remarkably similar to human insulin, differing in molecular structure by only three amino acid residues.
<b>Form</b>	Lyophilized
<b>Molecular Mass</b>	5.733 kDa
<b>Storage</b>	Store desiccated at -20°C. Alternatively, it can be stored at 2-4°C for up to 1 year if it is sterile-filtered through a low protein binding membrane. Avoid repeated freeze-thaw cycles. Protect from light.
<b>Reconstitution</b>	Centrifuge vial prior to opening. Insulin has low solubility at neutral pH. It can be solubilized at 2 mg/ml in dilute acetic acid or hydrochloric acid, pH 2-3. INS solutions cannot be autoclaved. Insulin can also be solubilized in 125 mM NaHCO <sub>3</sub> . However, alkaline stock solutions are not recommended since high pH increases the rate of deamidation and aggregation.

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## GENE INFORMATION

**Gene Name** INS insulin [ Bos taurus ]

**Official Symbol** INS

**Synonyms** insulin; proinsulin

**Gene ID** 280829

**mRNA Refseq** NM\_001185126

**Protein Refseq** NP\_001172055

**Chromosome Location** chromosome: 29

**Pathway** AMPK signaling pathway, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Disease, organism-specific biosystem

**Function** hormone activity; identical protein binding; protein binding

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