

INS

Native Bovine Insulin, Cell Culture Grade

Catalog No.	CRI116B	Quantity:	100 mg
	CRI116C		1 gram

Description: Insulin is a two-chain polypeptide hormone produced in the pancreatic β cells and it is the most studied hormone. Insulin regulates glucose uptake into muscle and fat cells by recruiting membrane glucose transporter Glut-4 to cell surface. The amino acid sequence of insulin is extremely well conserved. Bovine insulin differs from human insulin in only three amino acid residues, similar enough to be clinically effective in humans. Bovine Insulin is used as growth supplement in culturing cells at the concentration ranging from 1 to 10 micrograms per milliliter of medium.

UniProt ID: P01317

CAS No.: 11070-73-8

Source: Bovine pancreas

Molecular Weight: ~5.8 kDa

Formulation: Lyophilized

Biochemical Testing: Potency ≥ 25 USP units/mg by HPLC

Application: Suggested Usage: 1 to 10 $\mu\text{g/ml}$ bovine insulin in medium
Cell Culture tested: 5 $\mu\text{g/ml}$ of bovine insulin support robust growth of human keratinocytes

Reconstitution: Insulin has low solubility at neutral pH. It can be solubilized at 2 mg/ml in dilute acetic or hydrochloric acid, pH 2-3.
Prepare stock solution at 10 mg/ml with acidified water, pH 2.0 (use 0.1 ml acetic acid or HCL to prepare pH 2 water.) Sterile filter and apportion into working aliquots.

Storage & Stability: Store lyophilized protein at -20°C . Reconstituted protein should be apportioned into single use aliquots and stored at -20°C to -80°C for up to six months.
Avoid repeated freeze-thaw cycles.

Country of Origin: USA

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