

Recombinant Human Insulin (E. coli-derived)

Product Overview

Recombinant human insulin is a double-stranded (α , β) polypeptide hormone produced using Escherichia coli expression systems. Functionally identical to endogenous human insulin, it plays a critical role in regulating glucose uptake and metabolism by promoting glycogen, lipid, and protein synthesis in cells. **Free of animal-derived components, this high-purity recombinant insulin is ideal for use as a supplement in animal cell culture media.**

Key Features

Animal-free: Expressed in Escherichia coli

Validated identity: Confirmed by Western blot

Highly stable: Long-term storage up to 24 months

High purity: $\geq 99.0\%$ (USP-NF 2023)

Low endotoxin: ≤ 0.125 EU/mg

Specifications

Source	Escherichia coli	Appearance	Off-white loose body / powder
CAS / MDL	11061-68-0 / MFCD00131380	Protein Content	95.0–105.0% (Biuret)
Purity	$\geq 99.0\%$ (USP-NF 2023)	Endotoxin Level	≤ 10 EU/mg
Host Cell Protein	≤ 10 ng/mg		
Identification	Consistent retention time and peptide profile with standard		

Application

Supplement for animal cell culture media / Suitable for biotech and pharmaceutical research / Ideal for non-clinical laboratory use

Usage Instructions

Solubility: Insoluble in neutral water. **Dissolution:** Dissolve in 10 mM HCl or dilute acetic acid (pH 2–3) to make a 1–2 mg/mL stock solution. **Storage after dissolution:** Aliquot and store at -20°C . Avoid freeze-thaw cycles.

Storage & Shipping

Storage Temperature: $2-8^{\circ}\text{C}$

Shelf Life: 24 months

Transport: Ice pack

Storage Conditions: Dry, moisture-proof, and lightproof

Important Notice

This product is for research and industrial use only. Not intended for clinical, therapeutic, diagnostic, or veterinary applications. Not for use in humans or animals.