

Doc. No.	Rev	Effective Date
PI146	02	20-JUN-2025

## Bovine Transferrin, recombinant

### Product Name

Insulin (Bovine)

### Product Information

#### INFORMATION

Bovine Insulin is a biologically active peptide hormone composed of two polypeptide chains (A and B) connected by disulfide bonds. It plays a central role in regulating glucose uptake, lipid metabolism and protein synthesis, while also stimulating cell proliferation and survival.

In cell culture applications, recombinant insulin is commonly used as a growth-promoting supplement in serum-free and chemically defined media, supporting robust cellular metabolism and viability.

Recombinant bovine insulin is produced through microbial fermentation in E. coli and purified to >90% purity. Supplied as a lyophilised powder, it offers excellent stability, bioactivity and reproducibility—making it a reliable and scalable choice for research, development and biomanufacturing use.

### Product Specifications

<b>Grade:</b>	Manufactured under food-safe quality standards. Allergen-free
<b>Amount:</b>	500 µg per vial
<b>Molecular Weight:</b>	~6 kDa
<b>Production System:</b>	E.coli
<b>Protein Information:</b>	Recombinant serum albumin is a two-chain polypeptide
<b>Purification Method:</b>	Sequential chromatography (IMAC and desalting)
<b>Filtration:</b>	Filtered through a 0.22 µm sterile filter
<b>Sterility:</b>	Sterile
<b>Mycoplasma:</b>	Absent
<b>Form:</b>	Lyophilised powder
<b>Purity:</b>	>90%
<b>Reconstitution:</b>	1 mL of sterile MilliQ water

### QUALITY - TRACEABILITY - INTEGRITY

#### Life Science Group

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**Intended use:** Suitable for research use and as an ingredient in biomanufacturing and cellular agriculture. Not suitable for diagnostic use, clinical or veterinary applications, or direct human consumption

## Formulation

10 mM Na<sup>2</sup>HPO<sub>4</sub>, 1.8 mM KH<sub>2</sub>PO<sub>4</sub>, 2.7 mM KCl, 100 mM NaCl, pH 7.0, 2% Dextran T500

## Product Presentation

Product Code	Product Description	Size
GF-007-10mg	Bovine Insulin, recombinant	10mg
GF-007-100mg	Bovine Insulin, recombinant	100mg
GF-007-1gm	Bovine Insulin, recombinant	1gm

## Reconstitution Protocol

Perform reconstitution in a sterile laminar flow hood.

1. Remove red safety cap from vial.
2. Aspirate 1 mL of sterile milliQ water into a 1 mL sterile syringe.
3. Attach a sterile needle onto the syringe and insert into the vial through the centre of the rubber stopper seal.
4. Gently inject the 1 mL of water into the vial, then remove the needle and syringe.
5. Invert the vial 5-10 times, or until the lyophilised sample is fully reconstituted.
6. Insert the needle and syringe into the reconstituted sample vial, invert the vial and gently aspirate the sample liquid into the 1 mL syringe, being sure to collect the full volume by keeping the needle end near the rubber stopper opening.
7. Inject the reconstituted 1 mL sample into a sterile microfuge tube through a 0.22 µm syringe filter (provided).
8. Prepare stock concentrations in sterile microfuge tubes as per your relevant standard operating procedures, keeping in mind the avoidance of repeated freeze-thaw cycles.

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- Prepare working concentration stocks in sterile microfuge tubes as per your relevant standard operating procedures. The recommended working concentration for Insulin is 1-10µg/mL

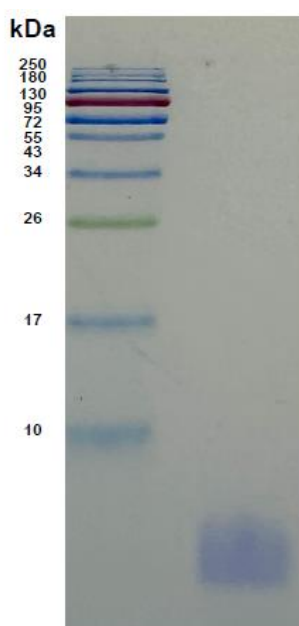
### Storage Instructions

Lyophilised sample is transported at ambient temperature. For extended shelf life, store at -20°C before and after reconstitution. The lyophilised vial can be stored at -20 °C for 12 months. The reconstituted protein aliquots can be stored at -20°C for 6 months. Once resuspended use within 1 week (storage at 4°C).

### Important Notes

Prepare under sterile conditions and avoid repeated freeze-thaw cycles of stock and working samples. For Research use only

### Purity Verification: SDS-PAGE and Coomassie staining



**Figure 1.** Insulin (LOT: 20250407-IB) run on an SDS-PAGE gel after lyophilisation. A prominent band was present at ~6 kDa with >90% purity.

To learn more, contact us by telephone at +44 1234 889180 or email at [sales@lifesciencegroup.co.uk](mailto:sales@lifesciencegroup.co.uk)

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