

Bovine Recombinant Insulin

Cell Culture Tested

Product Code: CF035

Product Description:

Source: *E.coli*

Molecular Weight: ~6 kDa

Bovine Insulin is dimeric polypeptide hormone secreted by pancreatic cells. The primary function of insulin is to regulate glucose uptake by recruiting membrane glucose transporter Glut-4 to cell surface of muscles and fat cells. Other functions of insulin involved memory development and cognitive behaviour. The amino acid sequence of insulin is well conserved among species. Bovine insulin differs from human insulin in only three amino acid residues. Bovine Insulin has often been used as growth supplement in cells culture at 1-10 µg/ml. Recombinant Bovine Insulin is a heterodimeric protein containing two 51 amino acids subunits. This has molecular weight of ~6 kDa.

CF035 is Bovine Recombinant Insulin expressed in *E.coli*, filtered through 0.2 micron filter and lyophilized with no additives.

Directions:

1. Centrifuge the vial prior to opening.
Note: Protein pellet may not be visible in the vial because protein is lyophilized without any carrier protein. As a result, small amount protein may get deposited on the inner walls of the vial during lyophilization in form of a thin and invisible film. aentrifugation causes deposition of any protein sticking to the cap or sides to settle at the vial bottom.
2. Surface sterilize using 70% isopropyl alcohol and take it into laminar air flow cabinet.
3. Aseptically reconstitute the lyophilized powder in sterile cell culture grade water to NLT 0.1 mg/ml concentration.
Note: Do not vortex.
4. Upon reconstitution, it can be stored in a buffer containing a carrier protein and store in working aliquots. Avoid repeated freeze-thaw cycles.

Quality Control:

Appearance

Lyophilized powder.

Solubility

Soluble at NLT 0.1 mg/ml in cell culture grade water.

Purity (by SDS-PAGE and HPLC analysis)

NLT 98%

Endotoxin Content

Less than 1EU/µg

Biological Activity

Specific activity: NLT 30 IU/mg.

Storage and Shelf Life:

Shelf life of Bovine Recombinant Insulin depends on the storage temperature and the form in which it is stored. Refer the table given below for recommended storage time of different forms of Bovine Recombinant Insulin at different storage temperatures.

Product form	Temperature	Storage time
Lyophilized	-30 to -10°C	2 years
Reconstituted (with carrier protein)	2°C to 8°C	1 month
	-30 to -10°C	6 months

Once reconstituted, aliquot the solution into the smaller volumes and freeze for future use. Repeated freezing and thawing of the reconstituted frozen solution should be avoided as it causes denaturation of protein to some extent.

Disclaimer :

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