



## PRODUCT DATA SHEET

### **Product:** Recombinant Human Insulin

**Cat. No.:** BC-304 (250 mg)

#### **Description:**

Recombinant Human Insulin is produced in *E. coli*. It is a two chain, non-glycosylated polypeptide chain containing 51 amino acids and having a molecular mass of 5,807 Da.

#### **Form:**

Sterile filtered white lyophilized (freeze-dried) powder. Recombinant Human Insulin was lyophilized from a concentrated (1 mg/mL) solution with no additives. Recombinant Human Insulin is purified by proprietary chromatographic techniques.

Less than 1% dimers and aggregates as determined by silver-stained SDS-PAGE gel analysis.

#### **Storage:**

Recombinant Human Insulin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution, Recombinant Human Insulin should be stored at 4°C for between 2 – 7 days and below -18°C for storage longer than 7 days. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid freeze-thaw cycles.

#### **Solubility:**

It is recommended to reconstitute the lyophilized Recombinant Human Insulin in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

#### **Purity:**

Greater than 98.0% as determined by:

- Analysis by RP-HPLC
- Anion-exchange FPLC
- Analysis by reducing and non-reducing SDS-Page Silver-Stained gel.

Protein content was determined by two independent methods: UV spectroscopy at 280 nm and Analysis by RP-HPLC, using a calibrated solution of Insulin as a reference standard.

#### **Endotoxin:**

Less than 0.1 ng/µg (IEU/µg) of Recombinant Human Insulin.

#### **Biological Activity:**

Recombinant Human Insulin is fully biologically active when compared to WHO reference standard which is 28 units/mg.

#### **Limitations:**

For research use only. Not for use in diagnostics or in humans.

#### **Warranty:**

No warranties, expressed or implied, are made regarding the use of this product. **KAMIYA BIOMEDICAL COMPANY** is not liable for any damage, personal injury, or economic loss caused by this product.