Data Sheet (Cat.No.TMPS-00182)

TargetMol

IGF1/IGF-I Protein, Bovine, Recombinant

General Information

Synonyms: IGF-1;Insulin-like growth factor I;Somatomedin;IGF1

Protein Construction: Gly50-Ala119

Species: Bovine

Expression Host: E. coli

Accession: P07455

Molecular Weight: ~7.7 kDa (Reducing conditions)

QC Testing

Biological Activity: ED 50 < 15.0 ng/ml , measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 6.7 × 10 4 units/mg.

Purity: > 95% as determined by SDS-PAGE

Endotoxin: < 0.2 EU/μg of protein as determined by the LAL method.

Formulation: Lyophilized from a 0.2 μm filtered solution in PBS.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 2 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Insulin-like growth factor 1 (IGF-1), also called Somatomedin, is a hormone similar in molecular structure to insulin but has a much higher growth-promoting activity. IGF-1 consists of 70 amino acids in a single chain with three intramolecular disulfide bridges. IGF-1 may be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. It is able to stimulate glucose transport in bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen

and DNA synthesis but also with regard to enhancing glucose uptake. It may also play a role in synapse maturation.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481