Recombinant Human IGF-1

Cat. #: SIF1-010

Protein Description

Insulin like growth factor I (IGF-1), also known as somatomedin C, is a secreted protein, which belongs to the insulin family. IGF-1 binds IGFI R, IGFI I R, and the insulin receptor, although its effects are mediated primarily by IGFI R, which is structurally and functionally related to insulin but has a much higher growth-promoting activity. IGF-1 regulates proliferation and differentiation of a wide variety of cell types. The human mature IGF-1 composes of 70 amino acids and three disulfide bonds with a MW of 7.6 kD. The recombinant IGF-1 is modified with additional 13 amino acids at N terminal to increase Activity and stability.

References

Ornitz DM, et al. (1996) J. Biol. Chem. 271, 15292-15297.

Abraham JA, et al. (1986) Cold Spring Harb. Symp. Quant. Biol. 51, 657-668.

Source: Derived from *E. coli*

Size: 10 µg

Shipping: Ambient temperature

Structure: Monomer, with additional 13 amino acid residues at N terminal

Purity: >95% by SDS-PAGE

Endotoxin Level: <1 EU/µg

Molecular Weight: 9 kDa

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS without carrier protein

Activity Assay

Activity was measured by its ability to stimulate the proliferation of 3T3 mouse fibroblast cells.

Reconstitution

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

Stability and Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. In general: 12 months from date of receipt, -20 to -80° C as supplied. 1 month, 2 to 8° C under sterile conditions after reconstitution. 3 months, -20 to -80° C under sterile conditions after reconstitution.

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