



11 Park Drive, Suite 12
Boston, MA 02215

Rat Insulin-Like Growth Factor 1

ORDERING INFORMATION

Catalog No: rAP-0046;

Size: 10 µg; 50 µg

Storage: <- 20° C

Synonyms:

Somatomedin C, IGF-I, IGFA, IGF1.

Introduction:

The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF1 mediates many of the growth-promoting effects of growth hormone (GH; MIM 139250). Early studies showed that growth hormone did not directly stimulate the incorporation of sulfate into cartilage, but rather acted through a serum factor, termed 'sulfation factor,' which later became known as 'somatomedin' (Daughaday et al., 1972). Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470), and somatomedin B (MIM 193190) (Rotwein, 1986; Rosenfeld, 2003).

Description:

Insulin-Like Growth Factor I Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7687 Dalton. IGF-I is purified by proprietary chromatographic techniques.

Source:

Escherichia Coli.

Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation:

The protein was lyophilized with no additives.

Solubility:

It is recommended to reconstitute the lyophilized IGF1 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilized IGF-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity:

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Biological Activity:

The ED₅₀ was calculated 2 methods:

1. Stimulation of protein synthesis in rat L6 myoblasts ED₅₀ was found to be < 30 ng/ml.
2. Type 1 IGF receptor binding assay ED₅₀ was found to be <10 ng/ml.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, angioproteomie@gmail.com



11 Park Drive, Suite 12
Boston, MA 02215

References:

Shimatzu A. & Rotwein P. (1987) J. Biol. Chem. **262**, 7894-7900

Upton Z. *et al.* (1996) J. Endocrinol. **149**, 379-387

Usage:

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, angioproteomie@gmail.com