

Insulin-Like Growth Factor 1, Human Recombinant

Cell Culture Reagents-Growth Supplements

Catalogue Number: CC105

Description: 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'. Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470), and somatomedin B (MIM 193190). Insulin-Like Growth Factor-I Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7655 Dalton. IGF-I is purified by proprietary chromatographic techniques.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered Clear Solution.

Formulation: 0.1mg/ml in 50mM acetic acid solution with 0.1% BSA added as stabilizer.

Stability: IGF1 should be stored at 4°C between 2-7 days and for future use below -20°C. Please avoid freeze-thaw cycles.

Suitability: Cell culture tested

Purity: Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Biological Activity: The ED50, calculated by the dose-dependant proliferation of murine BALB\C 3T3 cells (measured by 3H-thymidine uptake) is < 1.0 ng/ml, corresponding to a specific activity of 1x10⁶units/mg.

For most in-vitro applications, IGF-I exerts its biological activity in the concentration range of 0.2-20 ng/ml.

Protein content: EGF quantitation was carried out by two independent methods:

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.502 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IGF1 as a Reference Standard.

Amino acid sequence:

GPETLCGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMYCAPLKPTKAA

Catalogue Number	Description	Protein Conc.	Pack Size
CC105-10UG	IGF-1	100 ug/mL	100 uL
CC105-100UG	IGF-1	100 ug/mL	1 mL

FOR RESEARCH USE ONLY, NOT FOR USE IN DIAGNOSTIC AND THERAPEUTIC PROCEDURES



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