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# IGF1 Human Des1-3

Description: IGF-I Des(1-3) Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 67 amino acids (aa 4-70) and having a molecular mass of 7372 Dalton. IGF-1 Des1-3 is purified by proprietary chromatographic techniques.

Synonyms: Somatomedin C, IGF-I, IGFI, IGF-IA, Mechano growth factor, MGF, Des(1-3), Des1-3, Des 1-3, Des (1-3), IGF-1 (4-70).

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Thr-Leu-Cys-Gly-Ala.

Purity: Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

#### Formulation:

The protein was lyophilized after extensive dialysis against 50mM acetic acid buffer.

### Stability:

Lyophilized IGF-I des(1-3) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF1 des-1-3 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.

# Usage:

NeoBiolab'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.

# Solubility:

It is recommended to reconstitute the lyophilized IGF-I Des(1-3) in 100mM Acetic acid not less than 100g/ml, which can then be further diluted to other aqueous solutions.

## 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).

## **Biological Activity:**

The ED50, calculated by the dose-dependant proliferation of murine BALB\C 3T3 cells (measured by 3H-thymidine uptake) is < 1ng/ml, corresponding to a specific activity of 1,000,000units/mg. For most in-vitro applications, IGF-I des1-3 exerts its biological activity in the concentration range







www.neobiolab.com info@neobiolab.com 888.754.5670, +1 617.500.7103 United States 0800.088.5164, +44 020.8123.1558 United Kingdom of 0.2-20 ng/ml, corresponding to a specific activity of 50,000-5,000,000units/mg.



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