

Datasheet

IGF-1

Human Recombinant

Product	Description	Catalogue-No.	Size
IGF-1	Insulin-like growth factor, human recombinant	CB-1104112 CB-1104113	20 µg 100 µg

Product description

Synonyms: Somatomedin C, IGF-I, IGFI, IGF1, IGF-IA, Mechano growth factor, MGF

The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF-1 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 (IGF-1), somatomedin A (IGF-2; 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 weight of 7,600 Da. IGF-1 is purified by proprietary chromatographic techniques.

Solubility and storage conditions

It is recommended to reconstitute the lyophilized IGF-1 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Lyophilized Insulin-Like Growth Factor-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF-1 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.

Composition

Lyophilized from a 0.2µm filtered concentrated solution in 20mM PB, pH 7.0, 130mM NaCl.

Purity: Greater than 98.0% as determined by RP-HPLC and SDS-PAGE

Amino acid sequence:

GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSRRAPQ TGIVDECCFR SCDLRRLEMY
CAPLKPAKSA

Biological activity: The ED₅₀ as determined by a cell proliferation assay using murine BALB/C 3T3 cells is less than 1.0ng/ml, corresponding to a specific activity of $\geq 1 \times 10^6$ units/mg.

Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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