

Overview

Synonyms	Somatomedin C, IGF-I, IGFI, IGF1, IGF-IA, Mechano growth factor, MGF
Description	<p>Insulin-like growth factor I (IGF-I) also known as Somatamedin C is a hormone similar in molecular structure to insulin. Human IGF-I has two isoforms (IGF-IA and IGF-IB) which are differentially expressed by various tissues. Mature human IGF-I shares 94% and 96% aa sequence identity with mouse and rat IGF-I, respectively. Both IGF-I and IGF-II (another ligand of IGF) can signal through the IGF-I receptor (IGFIR), but only IGF-II can bind the IGF-II receptor (IGFIIR/ Mannose-6-phosphate receptor). IGF-I plays an important role in childhood growth and continues to have anabolic effects in adults. Recombinant Human IGF-I(N-Met) produced in <i>E.coli</i> is a polypeptide chain containing 71 amino acids. A fully biologically active molecule, rhIGF-I (N-Met) has a molecular mass of 7.8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 5 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0× 10 ⁵ units/mg.
Sequence	Gly ⁴⁹ -Ala ¹¹⁸ (Accession #: P05019), expressed with an N-terminal Met

Properties

Measured Molecular Weight	7.8 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant Human IGF-I(N-Met) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human IGF-I should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only

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