

DATASHEET
Version 20181206**IGF-I (N-Met), Human****Cat. No.:** Z03298-50**Size:** 50.0 ug**Synonyms:** Somatomedin C, IGF-I, IGFI, IGF1, IGF-IA, Mechano growth factor, MGF**Description:**

Insulin-like growth factor I (IGF-I) also known as Somatomedin 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 (IGFIIIR/ 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 *E.coli* 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 at GenScript.

Source: *E. coli***Biological Activity:** ED₅₀ < 5 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0× 10⁵ units/mg.**Molecular Weight:** 7.8 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**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.