

Recombinant Human IGF-I

Catalog No : PMK2159

Known As: Insulin-Like Growth Factor I; IGF-I; Mechano Growth Factor; MGF; Somatomedin-C; IGF1; IBP1

PROPERTIES

Description	Recombinant Human Insulin-like Growth Factor I is produced by our E.coli expression system and the target gene encoding Gly49-Ala118 is expressed.
Accession	P05019
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM NaAc-HAc, pH 4.5
Size	10µg/50µg/500µg/1mg
Purity	> 95%
Endotoxin	< 0.5 EU/µg as determined by LAL test.
Predicted Mol Mass	7.6 KDa
Apparent Mol Mass	68-12 KDa, reducing conditions
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in 50mM Acetic Acid. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Background	Insulin-like growth factor I (IGF1) belongs to the family of insulin-like growth factors that are structurally homologous to proinsulin. Mature IGFs are generated by proteolytic processing of inactive precursor proteins, which contains the N- and C-terminal propeptide regions. Mature human IGF-I consisting of 70 amino acids has 94% identity with mouse IGF-I and exhibits cross-species activity. IGF-1 binds IGF-IR, IGF-IIR, and the insulin receptor and plays a key role in cell cycle progression, cell proliferation and tumor progression. IGF-1 expression is regulated by growth hormone. R3 IGF-1 is an 83 amino acid analog of IGF-1 comprising the complete human IGF-1 sequence with the substitution of an Arg (R) for the Glu(E) at position three, hence R3, and a 13 amino acid extension peptide at the N terminus. R3 IGF-1 has been produced with the purpose of increasing biological activity. R3 IGF-1 is significantly more potent than human IGF-I in vitro.

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