

Recombinant Human IGF-1, Tag Free

General Information

Synonym	IGF1A, Insulin-Like Growth Factor 1, Somatomedin C, IGF-I, IGFI, IGF1, IGF-IA, Mechano growth factor, MGF.
Gene ID	3479
Accession #	P05019
Molecular Characterization	Gly49-Ala118
M.Wt	7.6 kDa
Source	293T cells
Bio Activity	Determined by the dose-dependent stimulation of murine CTLL-2 cells: ED50: < 0.1 ng/mL Specific activity: > 1x10 ⁷ units/mg.

Components and Storage

Formulation	The protein is dissolved in PBS buffer.
Storage	This product is stable after storage at: <ul style="list-style-type: none"> • 4°C for 1 week; • -20°C for 3 months. • Please avoid repeated freeze-thaw cycles.

Quality Control

Purity	≥ 95%, by SDS-PAGE and HPLC.
Endotoxin Level	< 0.1 ng/μg

For detail QC information, please see the CoA.

Background

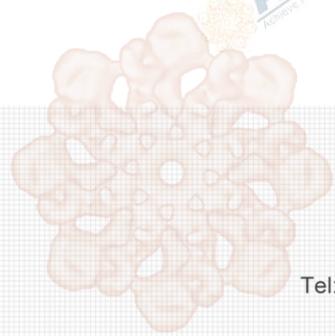
Insulin-like growth factor I (IGF-1) is a polypeptide endocrine hormone structurally similar to insulin and is mainly produced in the liver when stimulated by growth hormone. IGF-1 is a growth factor that stimulates the proliferation of various cell types including muscle, bone, and cartilage tissue. IGF-1 binds and interacts with the IGF-1 binding

proteins (IGFBPs). IGF-1 binds to the IGF-1 receptor with a higher affinity than the insulin receptor.

Human IGF-I is synthesized as two precursor isoforms with N- and alternate C-terminal propeptides, which are proteolyzed to produce the identical 7.6 kDa mature IGF-I. Mature human IGF I shares 94% and 96% aa sequence identity with mouse IGF1 and rat IGF1, respectively, and exhibits cross species activity. Human IGF-1 is a 7.6 kDa protein containing 70 amino acid residues. The recombinant human IGF-1 was produced using animal origin free technology.

Reference

Zhao Y, Wang Q, et al. "Glutamine protects against oxidative stress injury through inhibiting the activation of PI3K/Akt signaling pathway in parkinsonian cell model." Environ Health Prev Med. 2019 Jan 5;24(1):4.



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