

Catalog # Aliquot Size

I811-40N-100 100 μg I811-40N-1000 1 mg

Recombinant Human IGF1

Recombinant human protein expressed in E. coli cells

Catalog # I811-40N

Lot # G3211-52

Product Description

Recombinant Human IGF1 was expressed in E. coli cells. The protein accession number is $\frac{\text{P05019}}{\text{P05019}}$

Gene Aliases

IGF-I, Mechano growth factor, MGF, Somatomedin-C, IBP1 Recombinant Human Insulin Like Growth Factor-I (IGF1)

Endotoxin Level

<1.0 EU/ μg of recombinant protein as determined by the LAL method

Formulation

Lyophilized from a 0.2 μm filtered solution in sodium phosphate (pH 6.5) and 150mM NaCl

Reconstitution Protocol

A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.

Storage and Stability

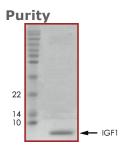
The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

Scientific Background

The Insulin Growth Factors belong to the Insulin gene family, the prototypic members of which include insulin and relaxin. Also known as somatomedin C, IGF1 is known to stimulate the proliferation of a wide range of cells including muscle, bone, and those of the cartilage tissue. A dominant effector of the growth hormone, mature IGF1 is generated by proteolytic removal of the N- and C- terminal pro-peptide regions. Mature human IGF1 shares 94% and 96% amino acid sequence identity with mouse and rat IGF1, respectively, while exhibiting cross-species activity. Circulating IGF1 is produced by hepatocytes while local IGF1 is produced by various other tissues in which it exerts paracrine effects. Recombinant Human IGF1 is a globular, 7.7 kDa protein that contains 3 native intra-molecular disulfide bonds.

Specific Activity

The ED50 as determined by a cell proliferation assay using MCF-7 cells was found to be ≤20 ng/ml



Recombinant Human IGF1 resolved on a 17% SDS-PAGE gel under reducing conditions and stained with Coomassie Brilliant Blue G-250

Approx. MW 7.7 kDa

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Catalog Number Specific Lot Number Purity Stability

Storage & Shipping

I811-40N G3211-52

95%

6 mos. at -20°C from date of shipment The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° -8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

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