



Recombinant Rat IGF-I
(Insulin-like Growth Factor I)

Catalog Number: 300-01
Accession Number: P08025

Specifications and Uses:

Alternate Names: Somatamedin C, mechano growth factor, IGF-IA

Description:

Insulin-like Growth Factor I, IGF-I, is a growth factor produced in response to growth hormone-stimulated liver tissue and can be found circulating throughout the body and throughout life. IGF-I activates the IGF-I receptor (IGF1R) and the insulin receptor to mediate growth of almost every cell of the body. IGF-I is known as one of the most potent activators of the AKT signaling pathway which is known to be a stimulator of proliferation and an inhibitor of programmed cell death. Mature human IGF-I is 100% homologous with bovine and porcine proteins. Recombinant rat IGF-I is a non-glycosylated protein, containing 70 amino acids, with a molecular weight of 7.7 kDa.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant rat IGF-I is lyophilized with no additives.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity (typically ≥ 98%) determined by:

HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

Endotoxin Level:

Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.

Biological Activity:

The activity is measured in a proliferation assay using FDC-P1 cells and is typically less than 100 ng/mL.

AA Sequence:

GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKSA

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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