

Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

The Insulin-like growth factors (IGFs) are mitogenic polypeptide growth factors that stimulate the proliferation and survival of various cell types, including muscle, bone and cartilage tissue in vitro. They are predominantly produced in the liver. IGFs belong to the Insulin gene family and are similar by structure and function to insulin, but have a much higher growth-promoting activity. IGF1 expression is regulated by growth hormone, while IGF2 expression is influenced by placenta lactogen. Both IGF1 and IGF2 signal through the tyrosine kinase type I receptor (IGF IR). Mature IGFs are generated through proteolytic processing of inactive precursor proteins. Recombinant human IGF1 is a globular protein containing 70 amino acids, and 3 intra-molecular disulfide bonds.

Catalog Number	1150-01
Product Name	IGF1, Human Recombinant Human Insulin-like Growth Factor 1 IGF1 Somatomedin C
Source	<i>Escherichia coli</i>
MW	~7.6 kDa (70 amino acid)
Sequence	GPETLCGAEL VDALQFVCGD RGFYFNKPTG YGSSRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPAKSA
Accession Number	P05019
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using serum free human MCF-7 cells is less than 2.0 ng/ml, corresponding to a specific activity of >5.0 × 10 ⁵ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.