



# Recombinant Human LR3-IGF-1

<b>Catalog #</b>	EPT077
<b>Expression Host</b>	E.coli
<b>DESCRIPTION</b>	Recombinant Human LR3 Insulin-Like Growth Factor-I is produced by our E.coli expression system and the target gene encoding Gly49-Ala118 is expressed.
<b>Accession</b>	P05019
<b>Synonyms</b>	Insulin-Like Growth Factor I; IGF-I; Mechano Growth Factor; MGF; Somatomedin-C; IGF1; IBP1
<b>Mol Mass</b>	9.1 KDa
<b>AP Mol Mass</b>	11 KDa, reducing conditions
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Less than 0.05 ng/μg (0.5 EU/μg) as determined by LAL test.
<b>FORMULATION</b>	Lyophilized from a 0.2 μm filtered solution of 20mM NaAc-HAc, 4% Mannitol, pH 4.5.
<b>RECONSTITUTION</b>	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  $< -20^{\circ}\text{C}$ , though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at  $4-7^{\circ}\text{C}$  for 2-7 days.

Aliquots of reconstituted samples are stable at  $< -20^{\circ}\text{C}$  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.

## **SDS-PAGE**

