

**Catalog No.: RP00825** **Recombinant**

| Species | Gene ID | Swiss Prot |
|---------|---------|------------|
| Human   | 3479    | P05019     |

## NO-Tag

**Synonyms**  
IGF1; IBP1; IGF-1; Insulin-like growth factor 1; Insulin-like growth factor I; IGF-I; Mechano growth factor; MGF; Somatomedin-C

|                                 |                                                                |
|---------------------------------|----------------------------------------------------------------|
| <b>Source</b><br><i>E. coli</i> | <b>Purification</b><br>≥ 95 % as<br>determined by SDS-<br>PAGE |
|---------------------------------|----------------------------------------------------------------|

| Calculated MW | Observed MW |
|---------------|-------------|
| 9.12 kDa      | 10-15 kDa   |

< 1 EU/μg of the protein by LAL method.

Lyophilized from a 0.2  $\mu$ m filtered solution of PBS, pH 7.4.

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

 | 400-999-6126  


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Long R3 IGF-1 (LR3 IGF-1) is a synthetic analog of IGF-1 that is generated by modifying the AA sequence for mature human IGF-1. These modifications include the substitution of an Arg for Glu at position three of the mature IGF-1 sequence and the addition of a thirteen aa N-terminal extension, which is derived from methionyl porcine Growth Hormone. These aa changes generate a protein that is still capable of binding to IGF-1 and Insulin receptors, but shows considerably lower affinity binding to IGF-BPs compared to wild-type IGF-1. As a result, LR3 IGF-1 has an increased half-life and displays increased biological potency compared to IGF-1.

**Description:** Recombinant Human LR3 IGF-I Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Gly49-Ala118) of human IGF-1 (Accession #P05019) with the substitution of an Arg for Glu at position three and the addition of a thirteen aa N-terminal extension.

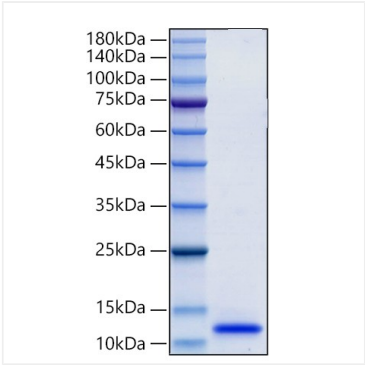
1□Measured in a cell proliferation assay using FDC-P1 cells. The ED<sub>50</sub> for this effect is 9.85-39.4 ng/mL, corresponding to a specific activity of 2.54×10<sup>4</sup>~1.01×10<sup>5</sup> units/mg.

Lyophilized proteins are shipped at ambient temperature.  
Liquid proteins are shipped at frozen temperature with dry ice.  
Upon receipt, store it immediately at the temperature recommended below.

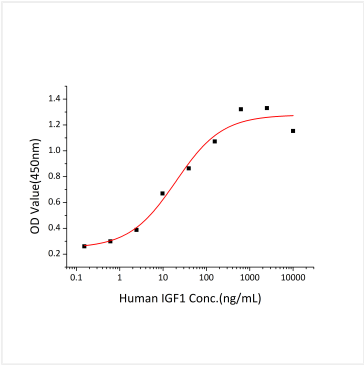
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.  
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.  
Avoid repeated freeze/thaw cycles.

For your safety and health, please wear a lab coat and disposable gloves for handling.

# Validation Data



Recombinant Human LR3 IGF-I Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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