

Recombinant Human LR3-IGF-1(E51R) Protein

Catalog No.: RP00825

Sequence Information

Species **Gene ID**
Human 3479

Swiss Prot **Tags**
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

Product Information

Source **Purification**
E. coli ≥ 95 % as determined by SDS-PAGE.

Calculated MW **Observed MW**
9.12 kDa 10–15 kDa

Endotoxin

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

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Reconstitution

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.

Background

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 IGF1Rs 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.

Basic Information

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.

Activity

1、Measured in a cell proliferation assay using FDC-P1 cells. The ED₅₀ for this effect is 9.85–39.4 ng/mL, corresponding to a specific activity of 2.54×10⁴~1.01×10⁵ units/mg.

Shipping

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.

Storage

Store at –20°C

Operational Notes

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

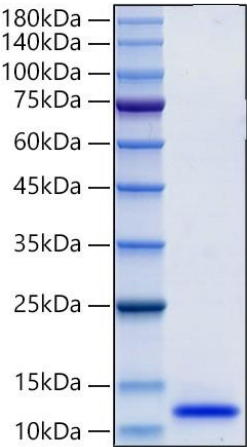
Contact

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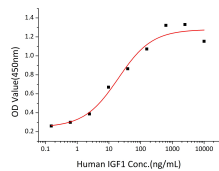
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Validation Data



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



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