

Rev07
Update: Apr,11,2024

DATASHEET

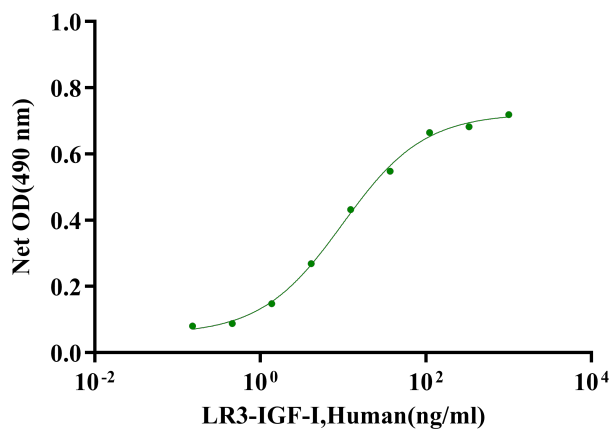
LR³-IGF-I (Receptor Grade), Human

Cat. No.: Z03177

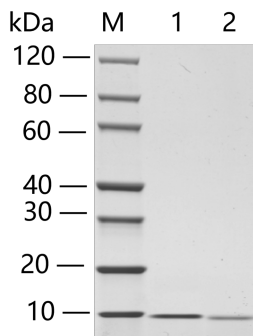
Product Introduction

Species	Human
Protein Construction	Expressed with additional N-terminal sequence (MFPAMPLSSLFVNGPRT). LR3-IGF-I (Leu53-Ala118) Accession # P05019
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 1 EU/ μ g of protein by gel clotting method
Biological Activity	ED ₅₀ < 10.0 ng/ml, measured by the dose-dependant proliferation of CHO cells, corresponding to a specific activity of > 1.0 \times 10 ⁵ units/mg.
Expression System	E. coli
Apparent Molecular Weight	~9.1 KDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against 50 mM acetic acid.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in 10 mM HCl up to 1mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Examples



ED₅₀ < 10.0 ng/ml, measured by the dose dependent proliferation of CHO cells, corresponding to a specific activity of > 1.0 × 10⁵ units/mg.



Lane 1: 2 µg of LR3-IGF-I (Receptor Grade), Human, non-reducing (NR)

Lane 2: 2 µg of LR3-IGF-I (Receptor Grade), Human, reducing (R)

> 95% as analyzed by SDS-PAGE

Background

Target Background : IGF-1 is a well-characterized basic peptide secreted by the liver that circulates in the blood. It has growth-regulating, insulin-like, mitogenic activities. IGF-1 is a growth factor that has a major, but not absolute, dependence on somatotropin. It is believed to be mainly active in adults in contrast to IGF-2, which is also a major fetal growth factor. Human Long R3 Insulin-like Growth Factor-1 (rhLR3IGF-1) contains an 83 amino acid analog of human IGF-I. Compared to the complete human IGF-I sequence, an addition of the rhLR3IGF-1 includes the substitution of an Arg for the Glu at position 3 (hence R3) and a 13 amino acid extension peptide at the N-terminus. An enhanced potency is due to the markedly decreased binding of human Long-R3-IGF-I to IGF binding proteins which normally inhibit the biological actions of IGFs.

Synonyms : LR3 Insulin-like Growth Factor-I; LR3-IGF-I

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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