

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant LR3-IGF-I (Receptor Grade), Human

Catalog Number: BK0123-100µg

Source: Escherichia coli.

Quantity: 100µg

Description:

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. RhLR3IGF-1 is properly folded under oxidizing conditions and then purified by proprietary chromatographic techniques at GenScript.

Molecular Weight:

9.1 ± 0.9 KDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE.

Biological Activity:

ED50 < 10 ng/ml, measured by the dose-dependant proliferation of CHO cells, corresponding to a specific activity of $>1.0 \times 10^5$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after dissolved in 48% acetonitrile and 0.1% TFA

AA Sequence:

MFPAMPLSSLFVNGPRTLCAELVDALQFVCG-
DRGFYFNKPTGYGSSSRAPQTGIVDEC-
CFRSCDLRRLEMYCAPLPAKSA

Endotoxin:

< 1 EU/ µg, determined by LAL method.

Reconstitution:

Reconstituted in 10mM HCl at 1mg/ml. Use a 0.22 µm membrane for filter Sterilization.

Storage:

Lyophilized recombinant human Long R3 Insulin-like Growth Factor-1 (rhLR3IGF-1) remains stable up to 6 months at -80 °C from date of receipt. Stock solution of peptide can be stored at least 3 months at -20 °C. Avoid repeated freeze-thaw cycles.

Usage:

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