DATASHEET
Version 20181206

LR^3-IGF-I (Receptor Grade), Human

Cat. No.: Z03177-1

Size: 1.0 mg

Synonyms: Human LR³ Insulin-like Growth Factor-I (LR³-IGF-I) (Receptor Grade)

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 R^3 Insulin-like Growth Factor-1 (rhLR^{3}IGF-1) contains an 83 amino acid analog of human IGF-I. Compared to the complete human IGF-I sequence, an addition of the rhLR^{3}IGF-1 includes the substitution of an Arg for the Glu at position 3 (hence R^3)and a13 amino acid extension peptide at the N-terminus. An enhanced potency is due to the markedly decreased binding of human Long-R^3-IGF-I to IGF binding proteins which normally inhibit the biological actions of IGFs. RhLR^{3}IGF-1 is properly folded under oxidizing conditions and then purified by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MFPAMPLSSL FVNGPRTLCG AELVDALQFV CGDRGFYFNK
00041 PTGYGSSSRR APQTGIVDEC CFRSCDLRRL EMYCAPLKPA
00081 KSA
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50} □10 ng/ml, measured by the dose-dependantproliferation of CHO cells, corresponding to a specific activity of >1.0× 10^5 units/mg.

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

Formulation: Lyophilized after dissolved in 48%acetonitrile and 0.1% TFA

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

Purity: > 95% by SDS-PAGE.

Endotoxin Level: □1 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant human Long R^3 Insulin-like Growth Factor-1 (rhLR^3 IGF-1) remains stable up to 6 months at lower than -70°C from date of receipt. Stock solution of peptide can be stored at least 3 months at -20°C. Avoid repeated freeze-thaw cycles.

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