Rev07
Update: Sep,11,2025

DATASHEET

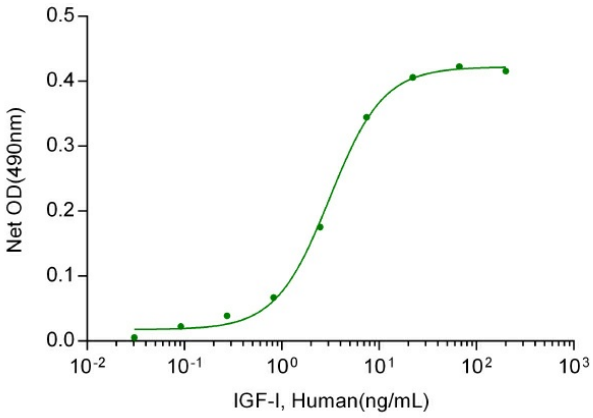
IGF-I, Human

Cat. No.: Z03017

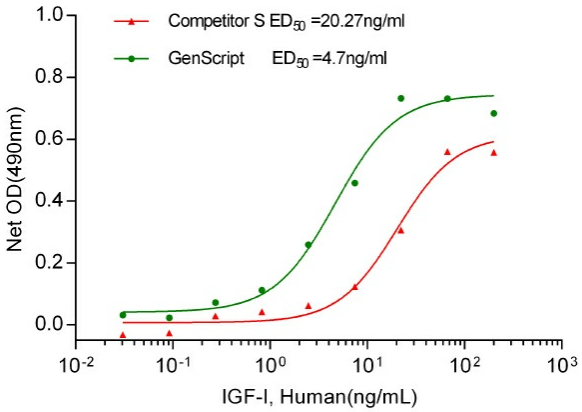
Product Introduction

Species	Human
Protein Construction	**IGF-I (Gly49-Ala118)** **Accession # P05019**
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	ED_{50} < 5.0 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0×10^5 U/mg.
Expression System	E. coli
Apparent Molecular Weight	~7.7 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
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 ddH_2O up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for 6 months at lower than -70°C. Upon reconstitution, the product should be stable for 1 week at 4°C or for 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



ED_{50}< 5 ng/ml, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of > 2.0× 10^5 units/mg.



GenScript product showed better activity compared to competitor S

Background

Target Background : Insulin-like growth factor I (IGF-I) also known as Somatamedin C is a hormone similar in molecular structure to insulin. Human IGF-I has two isoforms (IGF-IA and IGF-IB) which are differentially expressed by various tissues. Mature human IGF-I shares 94% and 96% aa sequence identity with mouse and rat IGF-I, respectively. Both IGF-I and IGF-II (another ligand of IGF) can signal through the IGF-I receptor (IGFIR), but only IGF-II can bind the IGF-II receptor (IGFIIR/ Mannose-6-phosphate receptor). IGF-I plays an important role in childhood growth and continues to have anabolic effects in adults.

Synonyms : Somatomedin C; IGF-I; IGFI; IGF1; IGF-IA; Mechano growth factor; MGF; Insulin-like Growth Factor-I

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

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