

Rev03
Update: Dec,14,2021

DATASHEET

IGF-II, Human

Cat. No.: Z03147

Product Introduction

Species	Human
Protein Construction	Expressed with an N-terminal Met. IGF-II (Ala25-Glu91) Accession # P01344-1
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 < 20.0 ng/ml, measured by a cell proliferation assay using FDCP-1 cells, corresponding to a specific activity of > 5.0 × 10 ⁴ units/mg.
Expression System	E. coli
Apparent Molecular Weight	~7.6 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against 25 mM Tris, pH 8.0.
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 ₂ O up to 100 μg/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.

Background

Target Background : Insulin-like Growth Factor II (IGF-II) is a single chain 7 kDa polypeptide, and shares a high degree of homology with insulin. During circulation in vivo, IGF-II is complexed to high affinity binding proteins, IGF Binding Proteins (IGFBP), which act as circulating reservoirs, transport IGF-II, and prolong the half life of IGF-II. The receptors of IGF-II (IGFRs) are transmembrane tyrosine receptors, and are heterotetrameric consisting of two α-subunits and two β-subunits. IGFRs execute their role via intracellular signaling molecules, such as IRS, shc, and PI3K. The functions of IGF-II include promoting cell survival, growth, proliferation, differentiation and motility. In particular, IGF-II promotes proliferation, inhibits death, and stimulates transformation in breast cancer cells.

Synonyms : Insulin-like Growth Factor-II; Somatomedin A

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