

Rev05
 Update: Aug,11,2025
DATASHEET

IGF-II, Human

Cat. No.: Z03147

Product Introduction

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| 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; Somatamedin A

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

Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28Yongxi Road, Jiangning District, Nanjing, Jiangsu, China