

Recombinant Human IGF-1/IGF1 Protein(His Tag)

Catalog Number: PKSH032594

Note: Centrifuge before opening to ensure complete recovery of vial contents.

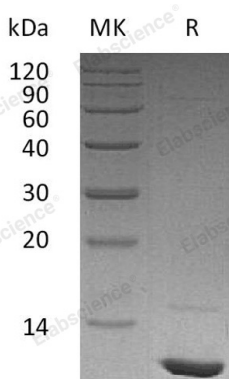
Description

| | |
|----------------------|---|
| Species | Human |
| Source | E.coli-derived Human IGF-1;IGF1 protein Gly49-Ala118 |
| Calculated MW | 7.6 kDa |
| Accession | P05019 |
| Bio-activity | Measure by its ability to induce MCF-7 cells proliferation. The ED ₅₀ for this effect is 0.9-3. 1ng/mL The, specific activity of recombinant human IGF-I is approximately >1.2x 10 ³ IU/mg. |

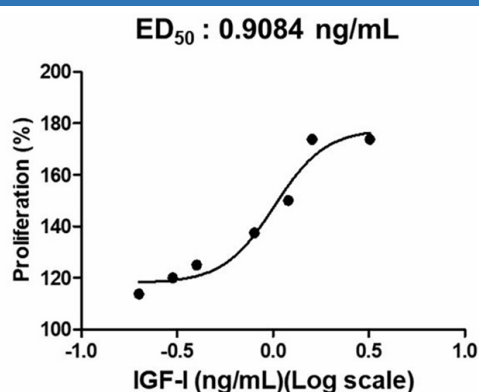
Properties

| | |
|-----------------------|--|
| Purity | > 95 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 0.01 EU per µg of the protein as determined by the LAL method. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



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10³ IU/mg.

Background

For Research Use Only

Insulin-like growth factor I (IGF1) belongs to the family of insulin-like growth factors that are structurally homologous to proinsulin. Mature IGFs are generated by proteolytic processing of inactive precursor proteins; which contains the N- and C-terminal propeptide regions. Mature human IGF-I consisting of 70 amino acids has 94% identity with mouse IGF-I and exhibits cross-species activity. IGF-1 binds IGF-IR; IGF-IIR; and the insulin receptor and plays a key role in cell cycle progression; cell proliferation and tumor progression. IGF-1 expression is regulated by growth hormone. R3 IGF-1 is an 83 amino acid analog of IGF-1 comprising the complete human IGF-1 sequence with the substitution of an Arg (R) for the Glu(E) at position three; hence R3; and a 13 amino acid extension peptide at the N terminus. R3 IGF-1 has been produced with the purpose of increasing biological activity. R3 IGF-1 is significantly more potent than human IGF-I in vitro.

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Toll-free: 1-888-852-8623

Web: www.elabscience.com

Tel: 1-832-243-6086

Email: techsupport@elabscience.com

Fax: 1-832-243-6017