

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

Catalog Number: PKSH032594

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

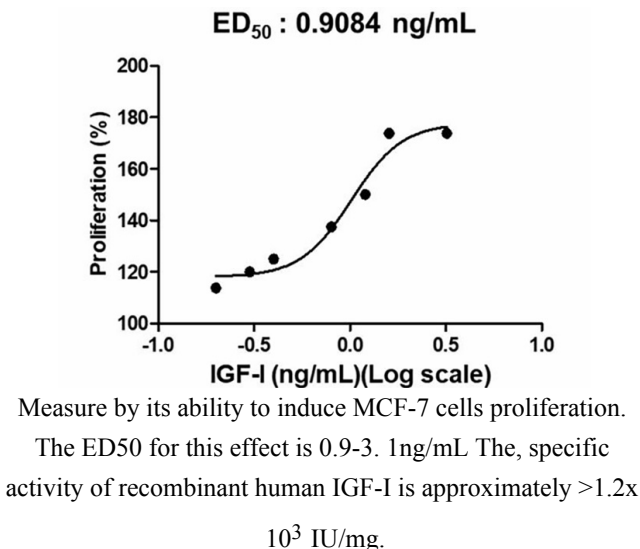
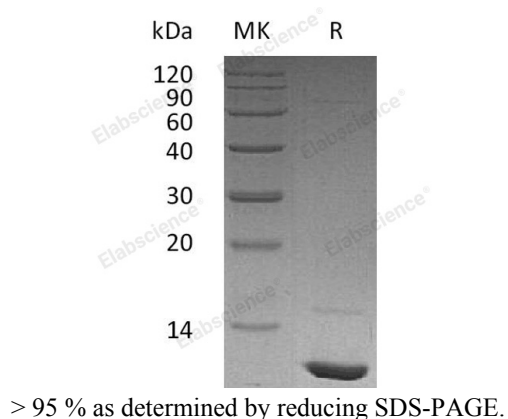
Description

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 $>1.2 \times 10^3$ 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.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



Background

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.