

37-1113: Human IGF1 / IGF-I Recombinant Protein(Discontinued)

Reactivity : Human

Alternative Name : IGF-1 Protein, IGF-I Protein, IGF1A Protein, IGF1 Protein, IGF-I Protein, MGF Protein,

Description

Source : E. coli

IGF I, also known as mechano growth factor, somatomedin-C, IGF-I and IGF1, is a secreted protein which belongs to the insulin family. The insulin family, comprised of insulin, relaxin, insulin-like growth factors I and II (IGF-I and IGF-II) and possibly the beta-subunit of 7S nerve growth factor, represents a group of structurally related polypeptides whose biological functions have diverged. The IGFs, or somatomedins, constitute a class of polypeptides that have a key role in pre-adolescent mammalian growth. IGF-I expression is regulated by GH and mediates postnatal growth, while IGF-II appears to be induced by placental lactogen during prenatal development. IGF1 / IGF-I may be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. IGF1 / IGF-I stimulates glucose transport in rat bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. Defects in IGF1 / IGF-I are the cause of insulin-like growth factor I deficiency (IGF1 deficiency) which is an autosomal recessive disorder characterized by growth retardation, sensorineural deafness and mental retardation.

Product Info

Amount : 1 Recombinant Protein(Discontinued) / 200 µg

Purification : > 95 % as determined by SDS-PAGE

Content : Formulation Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Gly49-Ala118

Application Note

1. Measured by its ability to bind human IGFBP4-His in a functional ELISA. 2. Measured by its ability to bind mouse IGFBP4-His in a functional ELISA. 3. Measured by its ability to bind Cynomolgus IGFBP1-His in a functional ELISA. 4. Measured by its ability to bind human IGF1R (aa 954-1367)-GST in a functional ELISA. 5. Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED50 for this effect is typically 0.5-2 ng/mL. 6. Measured in a cell proliferation assay using MCF-7 cells. The ED50 for this effect is typically 3.5-14 ng/mL.

Other pack size also available.

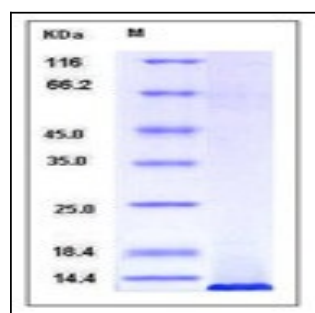


Fig 1: Human IGF1 / IGF-I Recombinant Protein

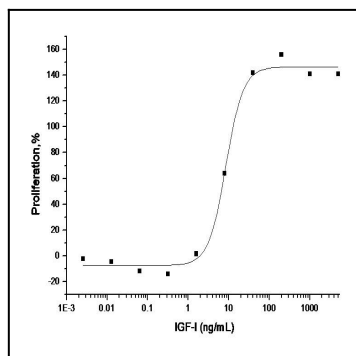


Fig 2: Human IGF1 / IGF-I Recombinant Protein measured by its ability to bind human IGFBP4-His in a functional ELISA.