

IGF1 active protein

IGF1 Protein, Human, Recombinant

CATALOG #
AAA257900

HOST
E Coli

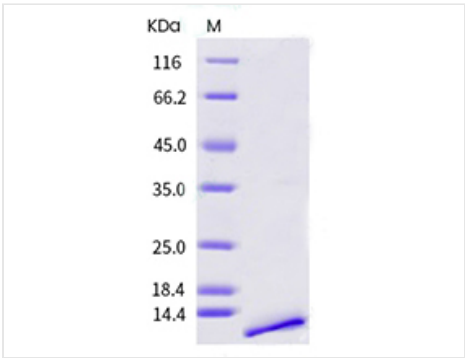
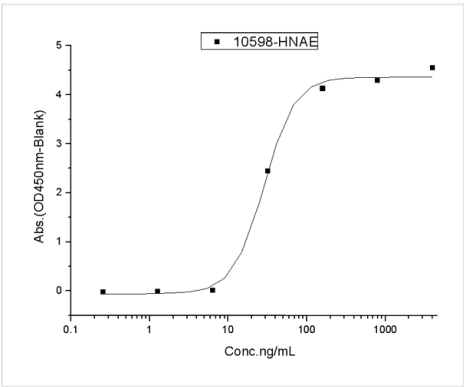
PRODUCT SYNONYMS

IGF1; IGF1 Protein; Human; Recombinant; Human IGF1/IGF-I Protein; IGF-1 Protein; IGF-I Protein; IGF1A Protein; IGFI Protein; MGF Protein; insulin-like growth factor 1 (somatomedin C); IGF1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 30% Acetonitrile, 0.1% TFA. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Gly49-Ala1 18
Species	Human
Predicted N Terminal	Met
Tag	Native
Protein Construction	A DNA sequence encoding the human IGF1 (P05019-1)(Gly49-Ala118) was expressed.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	1. Measured by its binding ability in a functional ELISA. Immobilized Human IGF1 at 2ug/ml (100uL/well) can bind Human IGFBP4 His. The EC50 of Human IGFBP4 His is 10-60ng/mL. 2. Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED50 for this effect is typically 0.5-2ng/mL. 3. Measured in a cell proliferation assay using MCF-7 cells. The ED50 for this effect is typically 3.5-14ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized Human IGF1 at 2 ug/ml (100 ul/well) can bind Human IGFBP4 His, the EC50 of Human IGFBP4 His is 10-60 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for IGF1 active protein	Background: IGF I, also known as Mechano Growth Factor, somatomedin-C, IGF-I, and IGF1, is a secreted protein that 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 about 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 Categories/Family for IGF1 active protein	Serine Proteases and Regulators
References	Jansen M., et al.,(1983), Sequence of cDNA encoding human insulin-like growth factor I precursor. Nature 306:609-611.de Pagter-Holthuisen P., et al., (1986), Organization of the human genes for insulin-like growth factors I and II.FEBS Lett. 195:179-184.le Bouc Y., et al.,(1986), Complete characterization of the human IGF-I nucleotide sequence isolated from a newly constructed adult liver cDNA library.FEBS Lett. 196:108-112.

NCBI AND UNIPROT INFORMATION

NCBI GI #	163659903
NCBI GeneID	3479
NCBI Accession #	NP_001104755.1
NCBI GenBank Nucleotide #	NM_001111285.1
UniProt Accession #	P05019; P01343; Q14620; B2RWM7; E9PD02
Molecular Weight	21,841 Da
NCBI Official Full Name	insulin-like growth factor 1 isoform 3 preproprotein
NCBI Official Synonym Full Names	insulin-like growth factor 1 (somatomedin C)
NCBI Official Symbol	IGF1
NCBI Official Synonym Symbols	IGFI; IGF-I; IGF1A

NCBI Protein Information	insulin-like growth factor 1; MGF; IGF-IA; IGF-IB; somatomedin-C; mechano growth factor; insulin-like growth factor I; insulin-like growth factor IA; insulin-like growth factor IB
UniProt Protein Name	Insulin-like growth factor I
UniProt Gene Name	IGF1
UniProt Synonym Gene Names	IBP1; IGF-I; MGF
UniProt Entry Name	IGF1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/igf1/257900>