abcam

Product datasheet

Recombinant human IGF1 protein ab123776

Description

Product name	Recombinant human IGF1 protein
Biological activity	The ED_{50} as determined by a cell proliferation assay using NIH3T3 cells is typically 1-6 ng/ml.
Purity	> 97 % SDS-PAGE. Purity is greater than 97% as determined by HPLC and SDS-PAGE. Endotoxin Level: <0.1 ng/µg.
Expression system	Escherichia coli
Accession	P01343
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	9 kDa

Specifications

Our Abpromise guarantee covers the use of **ab123776** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE HPLC
Form	Lyophilized
Additional notes	ab123776 shows higher potency than regular human IGF-I in bioactivity assay. ab123776 was produced from E. coli using Animal Origin Free (AOF) components and therefore it is suitable for bioproduction also.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C. Store under desiccating conditions. This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute in dH_2O or 10 mM HAC to 1.0 mg/ml. This solution can then be diluted into other

buffered solutions or stored at 4°C for 1 week or –20°C for future use. Reconstituted ab123776 should be stored at working aliquots at -20°C. Avoid freeze/thaw cycles.

General Info

Function	The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity. May be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. 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.
Involvement in disease	Defects in IGF1 are the cause of insulin-like growth factor I deficiency (IGF1 deficiency) [MIM:608747]. IGF1 deficiency is an autosomal recessive disorder characterized by growth retardation, sensorineural deafness and mental retardation.
Sequence similarities	Belongs to the insulin family.
Cellular localization	Secreted.

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