


Mouse IGF-1 protein, His tag (Animal-Free)

Cat #: PRP1146

Size: 20 µg/100 µg/500 µg/1 mg

Product Information

	Product Name: Mouse IGF-1 protein, His tag (Animal-Free)		
REF	Catalog Number: PRP1146	LOT	Lot Number: Refer to product label
	Purity: > 98 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: <i>E. coli</i>
	Shipping: The product is shipped at ambient temperature.		

Background: IGF-1, also known as mechanical growth factor, growth hormone -C, IGF-1 and insulin-like growth factor 1, is a secreted protein belonging to the insulin family. Insulin family is composed of insulin, relaxin, insulin-like growth factors I and II (IGF-1 and IGF-II) and the possible 7S nerve growth factor β subunit, which represents a group of structurally related polypeptides, and its biological functions have been differentiated. IGF-1 may be a physiological regulator of [1-14C]-2-deoxy -D- glucose (2DG) transport and glycogen synthesis in osteoblasts. IGF-1 stimulates glucose transport in rat bone-derived osteoblasts (PyMS) and is effective at a much lower concentration than insulin, not only about glycogen and DNA synthesis, but also about enhancing glucose uptake. IGF-1 deficiency is the cause of insulin-like growth factor 1 deficiency, which is an autosomal recessive disease characterized by growth retardation, sensorineural deafness and mental retardation.

Sequence: Amino acid sequence derived from Mouse IGF-1 (Gly49-Ala118)(P05017) was expressed with 6xHis tag at the C-terminus.

Protein length: The secreted Mouse IGF-1 consists of 70 amino acids and has a predicted molecular mass of 8.6 kDa.

Biological Activity: Measure by its ability to induce MCF-7 cells proliferation. The ED_{50} for this effect is <2 ng/mL. The specific activity of recombinant mouse IGF-1 is > 5 x 10⁵ IU/mg.

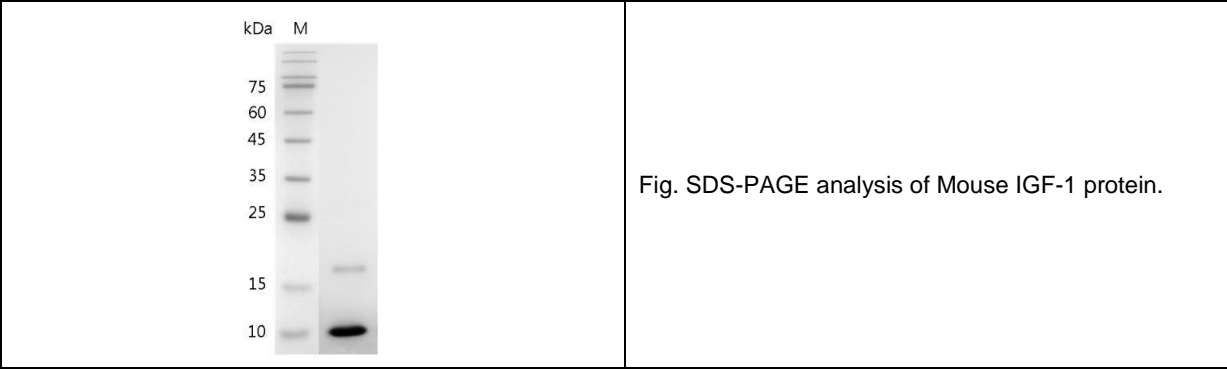
Endotoxin: < 0.1 EU per µg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile PBS, pH 8.0.

Storage Instructions: Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a

carrier protein (5% HSA , 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Mouse IGF-1 protein to a concentration of 0.1-1 mg/mL in sterile ddH₂O, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



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