


## Mouse IGF-1 protein

Cat #: PRP1146

Size: 20µg/100µg/500µg/1mg

### Product Information

	<b>Product Name:</b> Mouse IGF-1 protein		
<b>REF</b>	<b>Catalog Number:</b> PRP1146	<b>LOT</b>	<b>Lot Number:</b> Refer to product label
	<b>Purity:</b> >98% as determined by SDS-PAGE		
	<b>Storage:</b> Store at -20°C		<b>Preparation method:</b> E. coli
	<b>Shipping:</b> 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-2) and the possible 7S nerve growth factor  $\beta$  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 (P05017) (Gly49-Ala118) was expressed with 6×His 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.

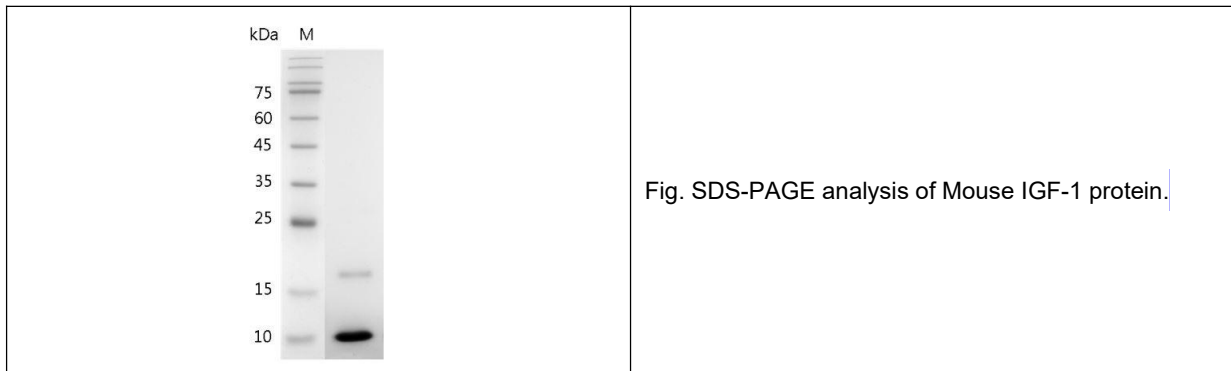
**Biological Activity:** Measure by its ability to induce MCF-7 cells proliferation. The ED<sub>50</sub> for this effect is <2 ng/mL. The specific activity of recombinant mouse IGF-1 is >5x10<sup>5</sup> IU/mg.

**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 ddH<sub>2</sub>O, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



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