

## Recombinant mouse IGF1/IGF- I/IGF-1 protein (His Tag)

**Catalog Number: PDEM100305**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

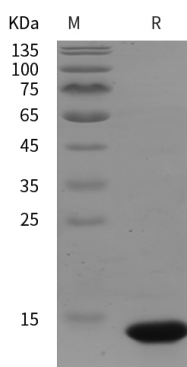
### Description

<b>Species</b>	Mouse
<b>Source</b>	E.coli-derived Mouse IGF1 protein Ala48-Met153, with an N-terminal His
<b>Calculated MW</b>	11.6 kDa
<b>Observed MW</b>	14 kDa
<b>Accession</b>	P05017
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Insulin-like growth factor I (IGF1) belongs to the family of insulin-like growth factors that are structurally homologous to proinsulin. Mouse IGF-I is synthesized as two precursor isoforms with alternate N- and C-terminal propeptides. These isoforms are differentially expressed by various tissues. Mature mouse IGF-I shares 94% and 99% aa sequence identity with human and rat IGF-I, respectively, and exhibits cross-species activity. It shares 60% aa sequence identity with mature mouse IGF-II. IGF-I induces the proliferation, migration, and differentiation of a wide variety of cell types during development and postnatally. It plays an important role in muscle regeneration and tumor progression. IGF-I binds IGF-I R, IGF-II R, and the insulin receptor. IGF-I association with IGF binding proteins increases its plasma half-life and modulates its interactions with receptors.

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