## **Elabscience**®

## Recombinant Mouse IGF1(Long-R3-IGF1) Protein (His Tag)

## Catalog Number: PKSM041325

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

Species       Mouse         Source       Ecoli-derived Mouse IGF1 protein Gly49-Ala118, with an C-terminal His         Calculated MW       8.6 kDa         Observed MW       11-17 kDa         Accession       P05017         Bio-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 > 5 x 10 <sup>5</sup> IU/mg.         Propertics       Purity       > 98 % as determined by reducing SDS-PACE.         Endotoxin       < 0.1 EU per µg of the protein as determined by the LAL method.	Description	
Calculated MW       8.6 kDa         Observed MW       11-17 kDa         Accession       P05017         Bio-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-I is > 5 x 10 <sup>5</sup> IU/mg.         Properties         Purity       >98 % as determined by reducing SDS-PACE.         Endotoxin       < 0.1 EU per µg of the protein as determined by the LAL method.         Storage       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.         Shipping       This product is provided as lyophilized powder which is shipped with ice packs. Lyophilized from sterile PBS,pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.         Reconstitution       Please refer to the printed manual for detailed information.         Data       75- 63- 63- 63- 63- 63- 63- 63- 63-	Species	Mouse
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		25-

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Background

## **Elabscience**®

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% as sequence identity with human and rat IGF-I, respectively, and exhibits cross-species activity. It shares 60% as 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.