

Catalog Number: Eg1976

**Basic Information****Species:**  
Rat**Purity:**  
>90 %, SDS-PAGE**Tag:**  
rFc Tag**Technical Specifications****Purity:**  
>90 %, SDS-PAGE**Endotoxin Level:**  
<0.1 EU/  $\mu$ g protein, LAL method**Source:**  
HEK293-derived Rat IGF-1 protein Gly23-Ala92 (Accession# AAA41386) with a rabbit IgG Fc tag at the N-terminus.**GeneID:**  
24482**Accession:**  
AAA41386**Predicted Molecular Mass:**  
34.9 kDa**SDS-PAGE:**  
35-40 kDa, reducing (R) conditions**Formulation:**  
Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.**Biological Activity**

Not tested

**Storage and Shipping****Storage:**  
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.**Reconstitution**

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

**Background**

Insulin-like-growth factor 1 (IGF-1), a 70 amino-acid peptide hormone is the principal mediator of biochemical effects of growth hormone (GH). IGF-1 is an important growth factor in the regulation of cell proliferation and differentiation. IGF-1 is largely synthesized in the liver (75%) and, to a lesser extent, in peripheral tissues. IGF-1 have been shown to play an essential role in preventing the formation of fatty liver. IGF-1 is a potent mitogen and is inhibited by IGF-binding protein-3 (IGFBP3). High serum IGF-1 and low IGFBP3 are associated with increased risk of several carcinomas.

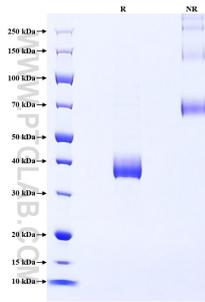
**References**

1. Adamo ML. et al. (1993) *Adv Exp Med Biol.* 343:1-11.
2. Adachi Y. et al. (2019) *J Gastroenterol Hepatol.* 34(12):2104-2111.
3. Anisimov VN. et al. (2019) *Crit Rev Oncol Hematol.* 87(3):201-23.
4. Sonntag WE. et al. (2012) *J Gerontol A Biol Sci Med Sci.* 67(6):587-98.

**Synonyms**

Igf1, Igf-1, IGF-I, Insulin-like growth factor I, Somatomedin

## Selected Validation Data



Purity of Recombinant Rat IGF-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.

For technical support and original validation data for this product please contact

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