For Research Use Only

Recombinant Mouse IGF1 protein (rFc Tag)

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Catalog Number: Eg1939

Basic Information

Species: Mouse
Purity: >90 %, SDS-PAGE
Tag: rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/ μ g protein, LAL method

Source:
HEK293-derived Mouse IGF-1 protein Gly33-Ala102 (Accession# Q8CAR0) with a rabbit IgG Fc tag at the N-terminus.

GeneID:
16000

Accession:
Q8CAR0

Predicted Molecular Mass:
34.9 kDa

SDS-PAGE:
32-42 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μ 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℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ 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. Mice lacking IGF-1 exhibit generalized organ hypoplasia including underdevelopment of the central nervous system and developmental defects in bone, muscle and reproductive systems.

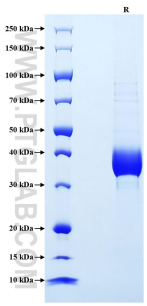
References

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 Mouse IGF-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.