

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

Catalog Number: PKSM041325

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

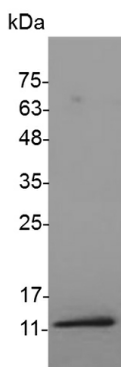
Description

Species	Mouse
Source	E.coli-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 ₅₀ for this effect is <2 ng/mL. The specific activity of recombinant mouse IGF-I is > 5 x 10 ⁵ IU/mg.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
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.
Formulation	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



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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.