



Recombinant Protein Technical Manual
Recombinant Mouse IGF1(Long-R3-IGF1) Protein
(His Tag)(Active)
RPES1494

Product Data:

Product SKU: RPES1494

Size: 10µg

Species: Mouse

Expression host: E. coli

Uniprot: P05017

Protein Information:

Molecular Mass: 10.2 kDa

AP Molecular Mass: 12 kDa

Tag: C-His

Bio-activity: Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED50 for this effect is 842 ng/ml.

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 a 0.2 µm filtered solution of 20mM NaAc, pH 4.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Cell Culture

Synonyms: IGF1; IGF; insulin-like growth factor 1; Insulin-like growth factor I; Somatomedin C; somatomedin-C

Immunogen Information:

Sequence: Gly49-Ala118

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.