## Recombinant Mouse IGF1/IGF?I/IGF-1 Protein

Catalog Number: PKSM040958



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

#### **Description**

Synonyms C730016P09Rik;Igf-1;Igf-I

Species Mouse Expression Host Yeast

 Sequence
 Gly49-Ala118

 Accession
 NP\_001104744.1

Calculated Molecular Weight 7.7 kDa
Tag None

### **Properties**

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

**Endotoxin** Please contact us for more information.

**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 7.4

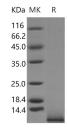
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

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



> 95 % as determined by reducing SDS-PAGE.

#### **Background**

IGF I, also known as mechano growth factor, somatomedin-C, IGF-I and IGF1, is a secreted protein which belongs to the?insulin family. The insulin family, comprised of insulin, relaxin, insulin-like growth factors I and II ( IGF-I and IGF-II ) and possibly the beta-subunit of 7S nerve growth factor, represents a group of structurally related polypeptides whose biological functions have diverged. The IGFs, or somatomedins, constitute a class of polypeptides that have a key role in pre-adolescent mammalian growth. IGF-I expression is regulated by GH and mediates postnatal growth, while IGF-II appears to be induced by placental lactogen during prenatal development. IGF1 / IGF-I may be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. IGF1 / IGF-I stimulates glucose transport in rat bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. Defects in IGF1 / IGF-I are the cause of insulin-like growth factor I deficiency (IGF1 deficiency) which is an autosomal recessive disorder characterized

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by growth retardation, sensorineural deafness and mental retardation.

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