Datasheet

Cat. No. P1179

Recombinant Mouse IGF-1

Information

Gene ID	16000
Accession #	P05017
Alternate Names	
Source	*Escherichia coli.*
M.Wt	Approximately 7.7 kDa, a single non-glycosylated polypeptide chain containing 70 amino acids.
AA Sequence	GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKAA
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 100mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using serum free human MCF-7 cells is less than 2 ng/ml, corresponding to a specific activity of > 5.0×10^5 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 μg	100 μg	500 μg
Recombinant Mouse IGF-1	10 μg	100 μg	500 μg

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Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rMuIGF-1 as determined by LAL method.

Description

The insulin-like growth factors (IGFs) belonged to the insulin gene family, are mitogenic polypeptide growth factors that stimulate the proliferation and survival of various cell types including muscle, bone, and cartilage tissue in vitro. The IGFs are similar by structure and function to insulin, but have a much higher growth-promoting activity than insulin. IGF-1 is produced primarily by the liver as an endocrine hormone as well as in target tissues in a paracrine/autocrine fashion. The production of IGF-1 is stimulated by growth hormone (GH) and can be retarded by undernutrition, growth hormone insensitivity, lack of growth hormone receptors, or failures of the downstream signaling pathway post GH receptor including SHP2 and STAT5B. Recombinant murine IGF-1 are globular proteins containing 70 amino acids and 3 intra-molecular disulfide bonds. Mature murine IGF-1 shares 94 % and 98 % a.a. sequence identity with human and rat IGF-1, respectively

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