Recombinant Rat IGF-I (rrIGF-I)
Catalog Number: 145-01

Description	The IGFs are mitogenic polypeptide growth factors that stimulate the proliferation and survival of various cell types including muscle, bone, and cartilage tissue *in vitro* via stimulating the uptake of glucose, fatty acids and amino acids. The liver predominantly produces IGFs, although a variety of tissues produce the IGFs at distinctive times. The IGFs belong to the insulin gene family, which also contains insulin and relaxin. The IGFs are similar by structure and function to insulin, but have a much higher growth-promoting activity than insulin. IGF-I binds to Type I IGF receptor, a homolog of the insulin receptor.
Synonyms	IGF1, IGF-1, IGFI, Somatamedin C
AA Sequence	GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKSA
Source	*Escherichia coli*
Molecular Weight	Approximately 7.6 kDa, a single non-glycosylated polypeptide chain containing 70 amino acids.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. The ED_{50} is < 2.0 ng/ml, corresponding to a specific activity of ≥ 5 x 10^5 units/mg, as determined by FDC-P1 cell proliferation.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PBS, pH 7.0.
Endotoxin	< 1EU/μg of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or *in vitro* diagnostic procedures.