

Recombinant Rat Insulin-like Growth Factor-1 (Rat IGF-1)

Product Information

Product Name	Cat#	Size
Recombinant Rat Insulin-like Growth Factor-1 (Rat IGF-1)	92209ES10	10 µg
	92209ES60	100 µg
	92209ES76	500 µg

Product Description

Insulin-like Growth Factor I (IGF-I), is the dominant effector of Growth Hormone (GH) and is structurally homologous to Proinsulin. The 7.6 kDa mature IGF-I is identical between isoforms and is generated by proteolytic removal of the N- and C-terminal regions. Mature human IGF-I shares 94% and 96% amino acid (aa) sequence identity with the mouse and rat orthologs, respectively. The body growth of animals is regulated by growth hormone and IGF-I. The classical theory of this regulation is that most IGF-I in the blood originates in the liver and that body growth is controlled by the concentration of IGF-I in the blood. Meanwhile, IGF-I has been shown to enhance neuronal survival and inhibit apoptosis. IGF-I promote the proliferation of multiple myeloma (MM) cells and protect them against dexamethasone (Dex)-induced apoptosis.

Product Properties

Synonyms	Somatomedin C, IGF-I, IGF-IA, Mechano growth factor, MGF
Accession	P08025
GeneID	24482
Source	E.coli-derived rat IGF-1 protein, Gly49-Ala118.
Molecular Weight	Approximately 7.7 kDa.
AA Sequence	GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKSA
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	>97% by SDS-PAGE and HPLC analyses.
Biological Activity	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. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA 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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!