



# IGF-I Recombinant Protein

Cat. No.: 40-440



## Ψ Specifications

<b>SPECIES:</b>	Murine
<b>SOURCE SPECIES:</b>	E. coli
<b>SEQUENCE:</b>	GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKAA
<b>TESTED APPLICATIONS:</b>	

## Ψ Properties

<b>PURITY:</b>	Greater than 98% by SDS-PAGE gel and HPLC analyses. Endotoxin level is less than 0.1 ng per µg (1EU/µg).
<b>PHYSICAL STATE:</b>	Lyophilized
<b>STORAGE CONDITIONS:</b>	The lyophilized IGF-I recombinant protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted IGF-I is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. As with any protein, exposing IGF-I recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

<b>OFFICIAL SYMBOL:</b>	Igf1
<b>ALTERNATE NAMES:</b>	Igf-1, Igf-I, C730016P09Rik, IBP1, Insulin-like growth factor I, Mechano growth factor, IGF-I
<b>ACCESSION NO.:</b>	NP_001104745.1
<b>PROTEIN GI NO.:</b>	163659894
<b>GENE ID:</b>	16000

## Background and References

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<b>BACKGROUND:</b>	<p>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. IGFs are predominantly produced by the liver, 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-II expression is influenced by placenta lactogen, while IGF-I expression is regulated by growth hormone. Both IGF-I and IGF-II signal through the tyrosine kinase type I receptor (IGF-IR), but, IGF-II can also signal through the IGF-II/Mannose-6-phosphate receptor. Mature IGFs are generated by proteolytic processing of inactive precursor proteins, which contain N-terminal and C-terminal propeptide regions. Recombinant murine IGF-I is a 7.6 kDa globular protein containing amino acids including 3 intra-molecular disulfide bonds.</p>
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