

Recombinant Mouse Insulin-Like Growth Factor 1 (rm IGF-1)

IGFs in general comprise a family of peptides that play important roles in mammalian growth and development. **IGF-1** mediates many of the growth-promoting effects of growth hormone (GH; MIM 139250). Early studies showed that growth hormone did not directly stimulate the incorporation of sulfate into cartilage, but rather acted through a serum factor, termed 'sulfation factor', which later became known as 'somatomedin' (Daughaday et al., 1972). Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470) and somatomedin B (MIM 193190) (Rotwein, 1986; Rosenfeld, 2003).

Recombinant murine IGF-1 produced in *E.Coli* is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7.600 kDa. rm IGF-I is purified by proprietary chromatographic techniques.

Synonyms : Somatomedin C, IGFA

Source: *Escherichia coli*

AA Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Gly-Pro-Glu-Thr-Leu.

Formulation: Lyophilized with no additives.

Reconstitution: Reconstitute in sterile endotoxin free water not less than 100 µg/ml

Stability: The lyophilized protein is stable for at least 2 years at -20°C. Reconstituted rm IGF-1 is stable for at least 3 months when stored in concentrated working aliquots (100 ng/µl or higher) at -20°C. Avoid repeated freeze/thaw cycles.

Biological Activity: The ED₅₀, calculated by the dose-dependant proliferation of murine BALB/C 3T3 cells (measured by 3H-thymidine uptake) is less than 1.0 ng/ml, corresponding to a specific activity of 1x10⁶ U/mg.

Purity: > 95% (verified by SDS-PAGE / silver stain)

Endotoxicity: The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method

Order N°: rm IGF-1+Size
available sizes: 10 µg, 50 µg

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