9051 Mira Mesa Blvd, #910094
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IGF1 Mouse

Insulin-Like Growth Factor 1 Mouse Recombinant
GRF0169

Product Overview

Name	IGF1 Mouse
Description	
Insulin-Like Growth Factor 1 Mouse Recombinant	
Accession (Primary)	P05017
Synonyms	
Somatomedin C, IGF-I, IGFIA, IGF1.	
Introduction	
The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF1 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).	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein was lyophilized with no additives.	
Stability	
Lyophilized IGFI although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF-1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
Purity	
Greater than 98.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
The sequence of the first five N-terminal amino acids was determined and was found to be Gly-Pro-Glu-Thr-Leu.	

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Biological Activity

The ED50, calculated by the dose-dependant proliferation of murine BALB\C 3T3 cells (measured by 3H-thymidine uptake) is < 1.0 ng/ml, corresponding to a specific activity of 1MU/mg.

Solubility

It is recommended to reconstitute the lyophilized IGF1 in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Protein content

Protein quantitation was carried out by two independent methods 1. UV spectroscopy at 280 nm using the absorbency value of 0.47 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of IGF-I as a Reference Standard.

Precautions

IGF1 Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P05017)