

Store at  
-20°C

# Mouse IGF-I Recombinant Protein



#19912

10 µg

Support: +1-978-867-2388 (U.S.)  
www.cellsignal.com/supportOrders: 877-616-2355 (U.S.)  
orders@cellsignal.comEntrez-Gene ID #16000  
UniProt ID #P05017

New 02/21

## For Research Use Only. Not For Use In Diagnostic Procedures.

**Background:** Most circulating endocrine-acting insulin-like growth factor I (IGF-I) is produced by hepatocytes, and paracrine- or autocrine-acting IGF-I is produced by defined cell types within specific tissues (1,2). Many neoplastic cells produce IGF-I, which regulates a number of cellular processes, including energy metabolism, proliferation, and cell survival (3,4). IGF-I activity is regulated by one or more of the six extracellular IGF-binding proteins (IGFBPs). IGFBPs bind to IGF-I, and most inhibit binding between IGF-I and the IGF-I receptor (IGFIR) (1,2). Some IGFBPs may increase cell responses to IGF-I. Binding of IGF-I to IGFIR activates the Akt, JNK, and Erk pathways (2). IGF-I and IGFIR are frequently expressed by cancer cells and may contribute to the proliferation and viability of a number of cancer types (1,2).

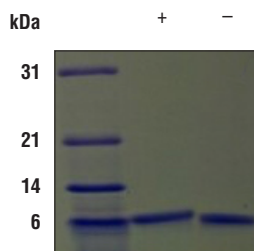
**Molecular Weight:** 7.7 kDa

**Endotoxin:** Endotoxin levels are  $\leq 1$  EU / 1 µg mIGF-I.

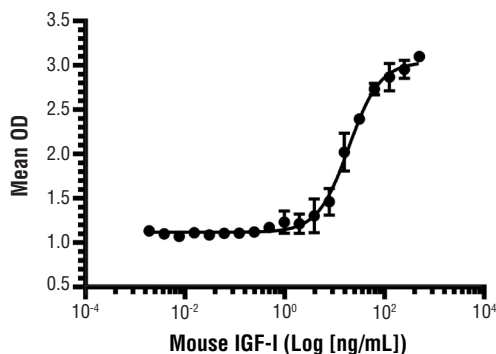
**Purity:**  $\geq 95\%$  purity was determined by SDS-PAGE.

**Source/Purification:** Recombinant mouse IGF-I was expressed in *E. coli* and is supplied in a lyophilized form.

**Bioactivity:** The bioactivity of recombinant mIGF-I was determined in an FDC-P1 cell proliferation assay. The  $ED_{50}$  of each lot is  $\leq 20$  ng/ml.



The purity of Mouse IGF-I Recombinant Protein was determined by SDS-PAGE of 1 µg reduced (+) and non-reduced (-) recombinant mIGF-I and staining with Coomassie Blue.



Serial dilutions of Mouse IGF-I Recombinant Protein were added to FDC-P1 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the  $ED_{50}$ .

**Storage:** Mouse IGF-I Recombinant Protein is supplied as lyophilized material that is very stable at  $-20^{\circ}\text{C}$ . It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/ml which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

### Background References:

- (1) Pollak, M. (2008) *Nat Rev Cancer* 8, 915-28.
- (2) Chitnis, M.M. et al. (2008) *Clin Cancer Res* 14, 6364-70.
- (3) Karye, K.P. and Sirbasku, D.A. (1988) *Cancer Res* 48, 4083-92.
- (4) Small, T.W. and Pickering, J.G. (2009) *J Biol Chem* 284, 24684-95.

Thank you for your recent purchase. If you would like to provide a review visit [cellsignal.com/comments](http://cellsignal.com/comments).

[www.cellsignal.com](http://www.cellsignal.com)

© 2021 Cell Signaling Technology, Inc.

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster MK—monkey MI—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.