

#29608 Store at -20C

# Human IGF-I Recombinant Protein

20 µg



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
7.7	#P05019	3479

## Background

Most circulating endocrine acting 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 IGF-I binding to IGF-I receptor (IGF-IR) (1,2). Some IGFBPs may increase cell responses to IGF-I. Binding of IGF-I to IGF-IR activates the Akt, JNK, and Erk pathways (2). IGF-I and IGF-IR are frequently expressed by cancer cells and may contribute to the proliferation and viability of several cancer types (1,2).

## Endotoxin

Endotoxin levels are less than or equal to 1 EU / 1 µg hIGF-I.

## Purity

A greater than or equal to 95% purity was determined by SDS-PAGE.

## Source / Purification

Recombinant human IGF-I was expressed in *E. coli* and is supplied in a lyophilized form.

## Bioactivity

The bioactivity of recombinant hIGF-I was determined in an FDC-P1 cell proliferation assay. The ED<sub>50</sub> of each lot is less than or equal to 10 ng/mL.

## Background

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## 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. Karey, 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.

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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