

IGF-I (E3R)
(human recombinant)
Catalog # 01-189
Lot # 18960

Source: Recombinant human IGF-I (E3R) expressed in *E.coli*. Purified by liquid chromatography. MW = 7.6kDa.

Purity: >95% by HPLC.

Sterility: Filter sterilized and packaged aseptically.

Storage and Stability: Lyophilized: Stable for 2 years at 4°C from date of shipment. Rehydrated: Stable for 3 months at -20°C or -80°C. More dilute solutions are less stable at -20°C. Aliquot rehydrated solutions to avoid repeated freezing and thawing.

Quantity: **25mg**/vial of lyophilized powder. Lyophilized from 100µl 0.1M acetic acid.

Rehydration: In 100mM acetic acid or 10mM HCl. When preparing solutions at concentrations of <1mg/ml add a carrier protein to minimize adsorption of peptide to plastic or glass surfaces. Use RIA grade bovine serum albumin at concentrations between 0.1 and 1mg/ml. For use in the presence of fetal bovine serum in cell culture, no carrier protein is necessary.

FOR IN VITRO RESEARCH USE ONLY
NOT FOR USE IN HUMANS OR IN ANIMALS

Quality Control Testing and Research Applications

Biological Activity: Stimulation of protein synthesis in L6 myoblasts: ED₅₀ = 0.9ng/ml. This lot at 5ng/ml stimulated incorporation of [³H] thymidine in chick embryo fibroblast cells 4.0-fold over background.

Background: IGF-I (E3R) (insulin-like growth factor I) is a 70 amino acid analog of human IGF-I with the substitution of an Arg for Glu at position 3. IGF-I (E3R) is significantly more potent than IGF-I *in vitro* and *in vivo* because IGF-I (E3R) has decreased binding to all IGF binding proteins.

References:

1. Lowe, W.L., In: Insulin-Like Growth Factors: Molecular and Cellular Aspects LeRoith, D., CRC Press Inc. Boca Raton, p49, 1991.
2. LeRoith, D., and C.T. Roberts Jr., Ann. New York Acad. Sci. **692**: 1, 1993.
3. Francis, G.L., J. Mol. Endocrinol. **8**: 213-223, 1992.