

Human R³ IGF I
(recombinant, E3R substitution)
Catalog # 01-189
Lot # 15905

Source: Recombinant DNA expressed in *E.coli*.
Purified by HPLC. MW = 7.6 kDa.

Purity: >95%

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

Sterility: Filter sterilized and packaged aseptically.

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.

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

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

Quality control Testing

Biological Activity: Stimulation of protein synthesis in L6 myoblasts: ED₅₀ = 0.8ng/ml. At 5ng/ml, this lot simulated incorporation of [³H] thymidine by chick embryo fibroblast cells 3.5 fold over background.

Background: R³ IGF-1 (insulin-like growth factor 1) is a 70 amino acid analog of human IGF-I with the substitution of an Arg for Glu at position 3. R³ IGF-I is significantly more potent than IGF-I *in vitro* and *in vivo* because R³ IGF-I 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 Roberts, Jr., CT Ann. New York Acad. Sci. **692**: 1, 1993.
3. Francis, G.L., J Mol Endocrinol. **8**: 213-223, 1992