

Recombinant Human Insulin-like Growth Factor-Binding Protein 4, Insect Cells Derived

#R00121

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or

household product.

Background

IGFBP-4 (insulin-like growth factor binding protein 4) is member of the IGFBP family of structurally similar secreted glycoproteins that maintain IGF-I and IGF-II in the circulation and direct them to their target tissues. IGF-binding proteins prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs with their cell surface receptors. IGFBP-4 consistently inhibits several cancer cells in vivo and in vitro.

AA Sequence

DEAIHCPPCSEEKLARCRPPVGCEELVREPGCGCCA
TCALGLGMPGCVYTPRCGSGRLCYPPRGVEKPLHTL
MHGQGVCMELAEIEAIQESLQPSDKDEGDHPNNSFS
PCSAHDRRCLQKHFAKIRDRSTSGGKMKVNGAPRE
DARVPVQGSCQSELHRALERLAASQSRTHELDLYIPI
NCDRNGNFHPKQCHPALDGGRGKWCVDRKTGVK

LPGGLEPKGELDCHQLADSFRE

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification	
Species	Human
Source	Insect Cells
Molecular Weight	The apparent molecular weight is about 30 kDa in SDS-PAGE under reducing conditions, containing 237 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by its ability to inhibit IGF-II induced proliferation of MCF-7 cells is less than 0.1 µg/ml, corresponding to a specific activity of > 1.0 × 10 ⁴ IU/mg in the presence of 14 ng/ml of rHuIGF-II.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20mM Tris-HCl, pH 8.0, 150mM NaCl.
Endotoxin	Less than 0.1 EU/µg of rHuIGF-BP4, Insect Cell as determined by LAL method.