



## Insulin Like Growth Factor Binding Protein-4, His Tag, HEK, human recombinant (rHuIGFBP-4-HEK-His)

**Catalog No:** 97477  
**Lot No:** XXXXX  
**Source:** HEK293  
**Synonyms:** Insulin-like growth factor-binding protein 4, IBP-4, IGF-binding protein 4, IGFBP-4, IGFBP4, IBP4, BP-4, HT29-IGFBP

### Background

Insulin-like growth factor-binding protein 4 (IGFBP-4) belongs to the insulin-like growth factor binding protein (IGFBP) family. IGFBP4 includes an IGFBP domain and a thyroglobulin type-I domain. IGFBP4 binds both insulin-like growth factors (IGFs) I and II. IGFBP-4 circulates in the plasma in both glycosylated and non-glycosylated forms. IGFBPs can either inhibit or enhance the biological activities of IGF, or act in an IGF independent manner. IGFBP-4 is exceptional since it consistently inhibits several cancer cells in vivo and in vitro, suggesting that it may function as an apoptotic factor. IGFBP4 is produced by all colon cancer cells. Binding of IGFBP-4 prolongs the half-life of the IGFs and changes their interaction with cell surface receptors.

### Description

IGFBP4 human recombinant (amino acids Asp22-Glu258) is produced in HEK293 cells and fused with a polyhistidine tag at the C-terminus. IGFBP4 predicted Mw is 27 kDa and on SDS-PAGE appears as a 32 kDa band under denaturing conditions. IGFBP4 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

IGFBP 4 was lyophilized after extensive dialysis against PBS.

### Solubility

It is recommended to reconstitute the lyophilized IGFBP4 in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized IGFBP4, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGFBP-4 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 95.0% as determined by SDS-PAGE.

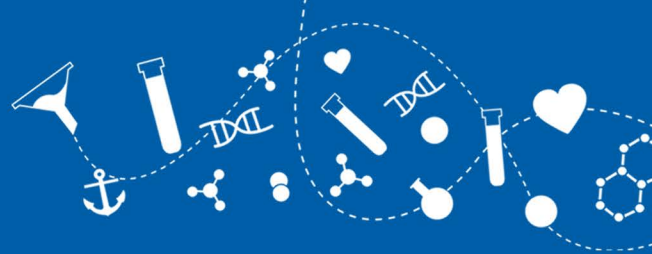
### Amino Acid Sequence

DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPCGVYT PRCGSGRLCY PPRGVEKPLH TLMHGQGVC  
MLAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHRRCLQK HFAKIRDRST SGGKMKVNGA PREDARVPVQ GSCQSELHRA  
LERLAASQSR THEDLYIIP I PNCDRNGNFH PKQCHPALDG QRGKWCVD R KTGVKLPGGL EPKGELDCHQ LADSFRE +His  
Tag

### CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • [info@biomol.de](mailto:info@biomol.de) • [www.biomol.de](http://www.biomol.de)

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



#### Activity

The ED50 range is 0.01-0.09 µg/ml as measured by its ability to inhibit the biological activity of IGFII (20 ng/ml) on MCF7 human breast adenocarcinoma cells.

#### Usage

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**