

Recombinant Human Insulin-Like Growth Factor Binding Protein-4 (rh IGFBP-4)

Synonyms: IGF-binding protein 4

Introduction: Insulin-like Growth Factor-binding protein 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: Human recombinant IGFBP-4 amino acids Asp22- Glu258, produced in HEK293 cells and fused with a polyhistidine tag at the C-terminus. IGFBP-4 is purified by proprietary chromatographic techniques.

Source: HEK293 cells

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized after extensive dialysis against PBS.
The aliquots/samples of 1µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized IGFBP-4 in sterile H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized IGFBP-4 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
PRCGSLRCY PPRGVEKPLH TLMHGQGVCM ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHDRRCLQK
HFAKIRDRST SGGKMKVNGA PREDARVPVQ GSCQSELHRA LERLAASQSR THEDLYIPI PNCDRNGNFH
PKQCHPALDG QRGKWCVDVDR KTGVKLPGGL EPKGELDCHQ LADSFRE + His Tag.

Biological Activity: Measured by its ability to inhibit the biological activity of IGFII (20ng/ml) on MCF7 human breast adenocarcinoma cells the ED50 range is 0.01 – 0.09 µg/ml.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11344840
<i>medium</i>	20 µg	Cat.N°	11344844

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