

**Recombinant Human Insulin-like Growth
Factor-Binding Protein 3
(rHuIGF-BP3)
ChemWhat Technical Data Sheet (TDS)**

| | |
|---------------------------------|--|
| Catalog Number: | 105-01B3 |
| Source: | <i>Escherichia coli</i> . |
| Molecular Weight: | Approximately 28.8 kDa, a single non-glycosylated polypeptide chain containing 264 amino acids. |
| Quantity: | 5µg/25µg/1mg |
| AA Sequence: | GASSAGLGPV VRCEPCDARA LAQCAPPAV CAELVREPGC GCCLTCALSE GQPCGIYTER CGSGLRCQPS PDEARPLQAL LDGRGLCVNA SAVSRLRAYL LPAPPAGNA SESEEDRSAG SVESPSVSST HRVSDPKFHP LHSKIIIKK GHAKDSQRYK VDYESQSTDT QNFSSSESKRE TEYGPCRREM EDTLNHLKFL NVLSPRGVHI PNCDKKGIFYK KKQCRPSKGR KRGFCWCVDK YGQPLPGYTT KGKEDVHCYS MQSK |
| Purity: | > 98 % by SDS-PAGE and HPLC analyses. |
| Biological Activity: | Fully biologically active when compared to standard. The ED ₅₀ as determined by inhibiting IGF-II induced proliferation of serum free human MCF-7 cells is less than 200 ng/ml, corresponding to a specific activity of > 5.0 × 10 ³ IU/mg in the presence of 15 ng/ml of rHuIGF-II. |
| Physical Appearance: | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Formulation: | Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. |
| Endotoxin: | Less than 1 EU/µg of rHuIGF-BP3 as determined by LAL method. |
| 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. |
| Shipping: | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage: | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 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. |
| Usage: | ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE. |

Human Insulin-like Growth Factor-Binding Protein 3

Insulin-like Growth Factor-Binding Protein 3 (IGF-BP3) belongs to the IGFBP family, which are all cysteine-rich proteins with conserved cysteine and have an IGFBP domain and a thyroglobulin type-I domain. Mature human IGF-BP3 contains 264 a.a. with three potential N-linked and two potential O-linked glycosylation sites. It is expressed by most tissues and has higher levels during extrauterine life and peak during puberty. The expression of IGF-BP3 in fibroblasts is stimulated by mitogenic growth factors such as Bombesin, Vasopressin, PDGF, and EGF. The protein forms a ternary complex with IGF-I or II and acid-labile subunit. In this form, it circulates in the plasma, prolonging the half-life of IGFs and altering their interaction with cell surface receptors. Decreased plasma levels of IGF-BP3 often happen during the progression of prostate cancer from benign to metastatic disease.