# Recombinant Human Insulin-like Growth Factor-Binding Protein 5 (rHuIGF-BP5)

## PrimeGene Technical Data Sheet

| | |
|---|---|
| **Catalog Number:** | 105-01B5 |
| **Source:** | *Escherichia coli.* |
| **Molecular Weight:** | Approximately 28.6 kDa, a single non-glycosylated polypeptide chain containing 252 amino acids. |
| **Quantity:** | 5μg/25μg/1000μg |
| **AA Sequence:** | LGSFVHCEPC DEKALSMCPP SPLGCELVKE PGCGCCMTCA LAEGQSCGVY TERCAQGLRC LPRQDEEKPL HALLHGRGVC LNEKSYREQV KIERDSREHE EPTTSEMAEE TYSPKIFRPK HTRISELKAE AVKKDRRKKL TQSKFVGGAE NTAHPRIISA PEMRQESEQG PCRRHMEASL QELKASPRMV PRAVYLPNCD RKGFYKRKQC KPSRGRKRGI CWCVDKYGMK LPGMEYVDGD FQCHTFDSSN VE |
| **Purity:** | > 96 % 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 0.4 μg/ml, corresponding to a specific activity of > 2500 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 10 mM Sodium Citrate, pH 3.0. |
| **Endotoxin:** | Less than 0.1 EU/μg of rHuIGF-BP5 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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 3 months, -20 to -70 °C under sterile conditions after reconstitution. |
| **Usage:** | This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**. |

### *Human Insulin-like Growth Factor-Binding Protein 5*

The superfamily of insulin-like growth factor (IGF) binding proteins include the six high-affinity IGF binding proteins (IGFBP) and at least four additional low-affinity binding proteins referred to as IGFBP related proteins (IGFBP-rP). All IGFBP superfamily members are cysteine-rich proteins with conserved cysteine residues, which are clustered in the amino- and carboxy-terminal thirds of the molecule. IGF-BP5 is produced by vascular smooth muscle cells. It is the major IGF-binding protein present in bone tissue and helps potentiate the action of IGF-I on smooth muscle cells, fibroblasts or osteoblasts. IGFBP-5 acts as a growth inhibitor and pro-apoptotic agent in breast cancer cells. IGFBP-5 overexpressing mice show an increase in neonatal mortality, reduced female fertility, whole-body growth inhibition and retarded muscle development. Recombinant human IGF-BP5 is a 28.6 kDa protein consisting of 252 amino acid residues. Human and murine IGF-BP5 share 97 % a.a. sequence identity.



**Shanghai PrimeGene Bio-Tech Co., Ltd.**
**Website:** www.primegene.com.cn **Website:** www.primegene.com **Email:** info.pg@bio-techne.com
**Tel: +86 21 52380373** **Fax: +86 21 61077348**