



## User Manual

**Insulin-like Growth Factor-Binding Protein 3 (IGF-BP3) (Human)**  
**Cat. No. HEGFP-09033**

**Description:**

Insulin-like Growth Factor-Binding Protein 3 (IGF-BP3) is a 30 kDa cysteine-rich secreted protein. It is the major IGF binding protein present in the plasma of human and animals and it is also found in  $\alpha$ -granules of platelets. In addition to its ability to modulate the activity of IGF-I and IGF-II, IGF-BP3 exerts inhibitory effects on follicle stimulating hormone (FSH) activity. Decreased plasma levels of IGF-BP3 often results in dwarfism, whereas elevated levels of IGF-BP3 may lead to acromegaly. The expression of IGF-BP3 in fibroblasts is stimulated by mitogenic growth factors such as Bombesin, Vasopressin, PDGF, and EGF.

**Source:**

*Escherichia coli*

**Unit:**

1 mg

**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  $< -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

**Formulation:**

Lyophilized from a 0.2  $\mu\text{m}$  filtered concentrated solution in PBS, pH 7.4.

**Storage:**

This lyophilized preparation is stable at  $2-8^{\circ}\text{C}$ , but should be kept at  $-20^{\circ}\text{C}$  for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at  $2-8^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

**Molecular Weight:**

Approximately 28.8 kDa, a single non-glycosylated polypeptide chain containing 264 amino acids.

**Endotoxin:**

Less than 1 EU/μg of IGF-BP3 as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The ED50 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  $> 5.0 \times 10^3$  IU/mg in the presence of 15 ng/mL of IGF-II.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

GASSGGLGPV VRCEPCDARA LAQCAPPPAV CAELVREPGC GCCLTCALSE  
GQPCGIYTER CGSGLRCQPS PDEARPLQAL LDGRGLCVNA SAVSRLRAYL  
LPAPPAPGNA SESEEDRSAG EVESPSVSST HRVSDPKFHP LHSKIIIIKK  
GHAKDSQRYK VDYESQSTDT QNFSSESKRE TEYGPCRREM EDTLNHLKFL  
NVLSPRGVHI PNCDKKGfYK KKQCRPSKGR KRGFCWCVDK YGQPLPGYTT  
KGKEDVHCYS MQSK

**Purity:**

> 98% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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