#### PRODUCT DATA SHEET



## Bioworld Technology, Inc.

# **Recombinant Human Pigment Epithelium-derived Factor (rHuPEDF)**

Catalog Number: PR1108 Source: Escherichia coli. Quantity:5µg/20µg/1.0mg

### **Description**

PEDF is a noninhibitory serpin with neurotrophic, antiangiogenic, and anti-tumorigenic properties. It is a 50 kDa glycoprotein produced and secreted in many tissues throughout the body. A major component of the anti-angiogenic action of PEDF is the induction of apoptosis in proliferating endothelial cells. In addition, PEDF is able to inhibit the activity of angiogenic factors such as VEGF and FGF-2. The neuroprotective effects of PEDF are achieved through suppression of neuronal apoptosis induced by peroxide, glutamate, or other neurotoxins. The recent identification of a lipaselinked cell membrane receptor for PEDF (PEDF-R) that binds to PEDF with high affinity should facilitate further elucidation of the underlying mechanisms of this pluripotent serpin. To date, PEDF-R is the only signaling receptor known to be used by a serpin family member. The unique range of PEDF activities implicate it as a potential therapeutic agent for the treatment of vasculature related neurodegenerative diseases such as age-related macular degeneration (AMD) and proliferative diabetic retinopathy (PDR). PEDF also has the potential to be useful in the treatment of various angiogenesisrelated diseases including a number of cancers.

### **Molecular Weight:**

Approximately 44.5 KDa, a single non-glycosylated polypeptide chain containing 400 amino acids.

### **Purity:**

>95% by SDS-PAGE and HPLC analyses.

### **Biological Activity:**

Data Not Available.

### **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in 20mM PB, pH7.4, 150mM NaCl.

### **AA Sequence:**

MQNPASPPEEGSPDPDSTGALVEEEDP F F K V P V N K L A A A V S N F G Y D L Y R V R S S M S P T T N V L L S P L S V A T A L S A L S L G A E Q RTESIIHRALYYDLISSPDIHGTYKELL DTVTAPQKNLKSASRIVFEKKLRIKSSF V A P L E K S Y G T R P R V L T G N P R L D L Q E I N NWVQAQMKGKLARSTKEIPDEISILLL GVAHFKGQWVTKFDSRKTSLEDFYLD EERTVRVPMMSDPKAVLRYGLDSDLS CKIAQLPLTGSMSIIFFLPLKVTQNLTLI EESLTSEFIHDIDRELKTVQAVLTVPKL K L S Y E G E V T K S L Q E M K L Q S L F D S P D F S KITGKPIKLTQVEHRAGFEWNEDGAGT TPSPGLQPAHLTFPLDYHLNQPFIFVLR DTDTGALLFIGKILDPRGP

#### **Endotoxin:**

Less than 1EU/mg of rHuPEDF 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.

**MADE IN CHINA** 

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Further dilutions should be made in appropriate buffered solutions.

### **Storage:**

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconsti-

tuted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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