

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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## Lieferung & Zahlungsart

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# PEDF (Pigment Epithelium-Derived Factor), human recombinant (rHuPEDF)

Catalog No: 99853 Lot No: XXXXX Source: *E. coli* 

Synonyms: Pigment epithelium-derived factor, PEDF, Serpin-F1, SerpinF1, EPC-1, EPC1, PIG35

#### **Background**

PEDF is a noninhibitory serpin with neurotrophic, anti-angiogenic, and anti-tumorigenic properties. PEDF is a 50,000 dalton glycoprotein created and secreted in many tissues all the way through the body. A key component of the anti-angiogenic action of PEDF is the induction of apoptosis in proliferating endothelial cells. Additionally, PEDF is capable to inhibit the activity of angiogenic factors such as VEGF and FGF-2. The neuro-protective effects of PEDF are achieved through suppression of neuronal apoptosis induced by peroxide, glutamate, or other neurotoxins. The recognition of a lipase-linked 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 associate 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 in addition has the potential to be functional in the treatment of various angiogenesis-related diseases including a number of cancers.

#### Description

PEDF human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 400 amino acids and having a molecular mass of 44.5 kDa. Human PEDF is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

#### **Formulation**

The sterile filtered concentrated (1 mg/ml) protein solution was lyophilized with 20 mM sodium phosphate buffer and 150 mM NaCl pH 7.4.

#### Solubility

Add deionized water to a working concentration of 0.5 mg/ml and let the lyophilized pellet dissolve completely.

#### Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/ thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time.

#### Purity

Greater than 95% as determined by SDS-PAGE.

#### **Amino Acid Sequence**

MQNPASPPEE GSPDPDSTGA LVEEEDPFFK VPVNKLAAAV SNFGYDLYRV RSSMSPTTNV LLSPLSVATA LSALSLGAEQ RTESIIHRAL YYDLISSPDI HGTYKELLDT VTAPQKNLKS ASRIVFEKKL RIKSSFVAPL EKSYGTRPRV LTGNPRLDLQ EINNWVQAQM KGKLARSTKE IPDEISILLL GVAHFKGQWV TKFDSRKTSL EDFYLDEERT VRVPMMSDPK AVLRYGLDSD





LSCKIAQLPL TGSMSIIFFL PLKVTQNLTL IEESLTSEFI HDIDRELKTV QAVLTVPKLK LSYEGEVTKS LQEMKLQSLF DSPDFSKITG KPIKLTQVEH RAGFEWNEDG AGTTPSPGLQ PAHLTFPLDY HLNQPFIFVL RDTDTGALLF IGKILDPRGP

#### Usage

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