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**Product Data Sheet**


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Product Name: PEDF Human, His

Cat. No.: GP20827

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Pigment epithelium-derived factor; PEDF; Serpin-F1; SerpinF1; EPC-1; EPC1; PIG35.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MQNPASPPEE GSPDPDSTGA LVEEEDPFFK VPVNKLAHAV SNFGYDLRV RSSMSPTTNV LLSPLSVATA LSALSLGAEQ RTESIIHRAL YYDLISSPDI HGTYKELLDT VTAPQKNLKS ASRIVFEKKL RIKSSFVAPL EKSYGTRPRV LTGNPRLDLQ EINNWWQAQM KGKLARSTKE IPDEISILL GVAHFKGQWV TKFDSRKTSL EDFYLDEERT VRVPMMSDPK AVLRVGLDSD LSCKIAQLPL TGSMSIIFFL PLKVTQNLTL IEESLTSEFI HDIDRELKTV QAVLTVPKLK LSYEGEVTKS LQEMKLQSLF DSPDFSKITG KPIKLTQVEH RAGFEWNEDG AGTTPSPGLQ PAHLTFPLDY HLNQPFIFVL RDTDTGALLF IGKILDPRGP.		
Formulation	The PEDF solution contains 20mM Tris-HCl buffer(pH 8.0), 0.1M NaCl , and 20% glycerol.		

**Introduction**

PEDF is a neurotrophic protein that induces extensive neuronal differentiation in retinoblastoma cells. SerpinF1 is a potent inhibitor of angiogenesis. EPC1 doesn't undergo the stressed to relaxed conformation transition characteristic as of the active serpins since it exhibits no serine protease inhibitory activity. Aqueous humour level of asymmetric dimethylarginine is correlated with PEDF in humans. ADMA and PEDF levels are increased in response to inflammation in uveitis. Lack of PEDF expression is a potent factor for the enhancement of tumor growth and angiogenesis in breast cancer. PEDF & VEGF genes contribute to the development of diabetic retinopathy. PEDF and VEGF structural changes in blood vessel wall play an important role in the pathophysiology of PD patients. PEDF-overexpressing tumors exhibited reduced intratumoral

**Caution: Product has not been fully validated for medical applications. For research use only.**

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angiogenesis. SerpinF1 is a new promising approach for the treatment of osteosarcoma. Levels of the natural ocular anti-angiogenic factor SentrinF1 (PEDF) is associated with proliferative retinopathy. VEGF secreted by retinal pigment epithelial cells upregulates PEDF expression via VEGFR-1 in an autocrine manner. Sentrin-F1 concentration in the aqueous humor of diabetic patients predicts who will develop progression of retinopathy. PEDF blocks angiogenic effects of leptin through its anti-oxidative properties.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

PEDF Human Recombinant produced in E.Coli containing a natural variant M72T is a single, non-glycosylated, polypeptide chain containing 420 amino acids (20-418 a.a.) and having a total molecular mass of 46.7 kDa. PEDF is fused to a 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

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