

Recombinant Human SERPINF1, His-tagged

Cat. No. SERPINF1-32H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PEDF produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 413 amino acids and having a molecular mass of 46.1 kDa. The Human Sentrin-F1 is fused to His tag at N-Terminus. The Human PEDF is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	20-418 a.a.
Description	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. 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-

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oxidative properties.

Amino Acid Sequence

MRGSHHHHHH GMASQNPASP PEEGSPDPDS TGALVEEEDP FFKVPVNKLA
AAVSNFGYDL YRVRSSMSPT TNVLLSPLSV ATALSALSLG AEQRTESI
RALYYDLISS PDIHGTYKEL LDTVTRQKN LKSASRIVFE KKLRIKSSFV
APLEKSYGTR PRVLTGNPRL DLQEINNWWQ AQMKGKLARS TKEIPDEISI
LLLGVAHFKG QWVTKFDSRK TSLEDFYLDE ERTVRVPMMS DPKAVLRYGL
DSDLSCKIAQ LPLTGSMIS FFLPLKVTQN LTLIEESLTS EFIHDIDREL
KTVQAVLTVP KLKLSYEGEV TKSLQEMKLQ SLFDSPDFSK ITGKPIKLTQ
VEHRAGFEWN EDGAGTTPSP GLQPAHLTFP LDYHLNQPFV FVLRDIDTGA
LLFIGKILDP RGP

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

Greater than 95% as determined by SDS-PAGE.

Formulation

The sterile filtered concentrated (0.5mg/ml) protein solution was lyophilized with 20mM Tris & 150mM NaCl pH-7.5.

Solubility

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

Storage

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.

GENE INFORMATION

Gene Name

SERPINF1 serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1 [Homo sapiens]

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Synonyms	SERPINF1; EPC-1; PEDF; PIG35; pigment epithelium-derived factor; proliferation-inducing protein 35; serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1; SerpinF1; EPC1; serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1; serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1; pigment epithelium-derived factor; Serpin-F1; proliferation-inducing protein 35
Gene ID	5176
mRNA Refseq	NM_002615
Protein Refseq	NP_002606
MIM	172860
UniProt ID	P36955
Chromosome Location	17p13
Function	serine-type endopeptidase inhibitor activity

PDB rendering based
on 1imv.



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