

Recombinant Human SERPINF1, Tag Free

Cat. No. SERPINF1-062S Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human SERPINF1 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	20-418 a.a.
Description	PEDF is a noninhibitory serpin with neurotrophic, anti-angiogenic, 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 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 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 angiogenesis-related diseases including a number of cancers.

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Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Data Not Available.
Molecular Mass	Approximately 44.5 KDa, a single non-glycosylated polypeptide chain containing 400 amino acids.
AA Sequence	MQNPASPPEEGSPDPDSTGALVEEEDPFFKVPVNKLAAAVSNFGYDLYRVRSSMS PTTNVLLSPLSVATALSALSGLAEQRTESIIHRALYYDLISSPDIHGTYKELLDTVTAPQ KNLKASARIVFEKKLRIKSSFVAPLEKSYGTRPRVLTGNPRDLQEINNWWQAQMKG KLARSTKEIPDEISILLGVAHFKGQWVKFDSRKTSLEDFYLDEERTVRVPMMSDPK AVLRYGLDSDLCKIAQLPLTGSMISIFFLPLKVTQNLTLIEESLTSEFIHDIDRELKTVQ AVLTVPKCLKLSYEGEVTKSLQEMKLQSLFDSPDFSKITGKPIKLTQVEHRAGFEWNE DGAGTTPSPGLQPAHLTFPLDYHLNQPFIFVLRD TDTGALLFIGKILDPRGP
Endotoxin	Less than 1 EU/mg of rHuPEDF as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2mm filtered concentrated solution in 20mM PB, pH7.4, 150mM NaCl.
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

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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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	SERPINF1 serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1 [Homo sapiens]
Official Symbol	SERPINF1
Synonyms	SERPINF1; serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1; PEDF, serine (or cysteine) proteinase inhibitor, clade F (alpha 2 antiplasmin, pigment epithelium derived factor), member 1; pigment epithelium-derived factor; EPC 1; PIG35; pigment epithelium derived factor; proliferation inducing protein 35; serpin F1; cell proliferation-inducing gene 35 protein; serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1; OI6; OI12; PEDF; EPC-1;
Gene ID	5176
mRNA Refseq	NM_002615
Protein Refseq	NP_002606
MIM	172860
UniProt ID	P36955