
Product Data Sheet

Product Name: PEDF Human

Cat. No.: GP20826

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Pigment epithelium-derived factor;PEDF; Serpin-F1; SerpinF1; EPC-1; EPC1; PIG35.		
Amino Acid Sequence	<p>MQNPASPPEE GSPDPDSTGA LVEEEDPFFK VPVNKLAHAV SNFGYDLYRV RSSMSPTTNV LLSPLSVATA LSALSLGAEQ RTESIIHRAL YYDLISSPDI HGTYKELLDV VTAPQKNLKS ASRIVFEKKL RIKSSFVAPL EKSYGTRPRV LTGNPRLDLQ EINNWWQAQM KGKLARSTKE IPDEISILL GVAHFQKQWV TKFDSRKTSL EDFYLDEERT VRVPMMSDPK AVLRYGLDSD LSKIAQLPL TGSMIIFFL PLKVTQNLTL IEESLTSEFI HDIDRELKTV QAVLTPKPK LSYEGEVTKS LQEMKLQSLF DSPDFSKITG KPIKLTQVEH RAGFEWNEDG AGTTPSPGLQ PAHLTFPLDY HLNQPFIFVL RDTDTGALLF IKGILDPRGP.</p>		
Solubility	It is recommended to reconstitute the lyophilized PEDF in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The sterile filtered concentrated (1mg/ml) protein solution was lyophilized with 20mM sodium phosphate buffer & 150mM NaCl pH-7.4.		

Introduction

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

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

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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.

Stability

Lyophilized PEDF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution PEDF Human should be stored at 4°C between 2-7 days and for future use below -18°C . 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 is a single, non-glycosylated, polypeptide chain containing 400 amino acids and having a molecular mass of 44.5 kDa. The Human PEDF is purified by proprietary chromatographic techniques.

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