9051 Mira Mesa Blvd, #910094
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Tel: 760-390-3989

PEDF Human

Pigment Epithelium-Derived Factor Human Recombinant
NTR0067

Product Overview

Name	PEDF Human
Description	
Pigment Epithelium-Derived Factor Human Recombinant	
Accession (Primary)	P36955
Synonyms	
Pigment epithelium-derived factor,PEDF, Serpin-F1, SerpinF1, EPC-1, EPC1, PIG35.	
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 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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The sterile filtered concentrated (1mg/ml) protein solution was lyophilized with 20mM sodium phosphate buffer & 150mM NaCl pH-7.4.	
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	

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storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

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.

Solubility

It is recommended to reconstitute the lyophilized PEDF in sterile 18M-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

About PEDF Human Also known as “Pigment Epithelium-Derived Factor” or “SERPINF1,” PEDF is a multifunctional protein found in vertebrates. It has anti-tumorigenic, anti-angiogenic, and neurotrophic functions. Currently, it’s being researched as a candidate for treatment for several conditions, including heart disease and cancer. What’s the Function of PEDF Human Recombinant? PEDF is created/secreted in several tissues across the body. It has a unique anti-angiogenic action because of its induction of apoptosis in proliferating endothelial cells. Also, PEDF can inhibit many angiogenic factors, including VEGF and FGF-2. PEDF-R is currently the only known signaling receptor to be used by a serpin family member. What’s the Application of PEDF Human Recombinant? This version of PEDF is produced in E. Coli. It’s a single, non-glycosylated, polypeptide chain that contains 400 amino acids. It has a molecular mass of 44.5 kDa, and it’s purified by proprietary chromatographic techniques. The main purpose of PEDF human recombinant is for research. It has the potential to become a potential treatment for different angiogenesis-related diseases, including various cancers. Moreover, it can become crucial during the recovery from vasculature- related neurodegenerative illness. Such a discovery could be revolutionary for the world, which is why more research is needed to determine the effect of this non-inhibitory serpin on the body.

Precautions

PEDF Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P36955)

Background

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