

32-1666: PEDF Recombinant Protein

Alternative Name : Pigment epithelium-derived factor, PEDF, Serpin-F1, SerpinF1, EPC-1, EPC1, PIG35.

Description

Source : Escherichia Coli. 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. 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.

Product Info

Amount :	20 µg
Purification :	Greater than 95% as determined by SDS-PAGE.
Content :	The sterile filtered concentrated (1 mg/ml) protein solution was lyophilized with 20mM sodium phosphate buffer & 150mM NaCl pH-7.4.
Storage condition :	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.
Amino Acid :	<pre>MQNPASPPEE GSPDPDSTGA LVEEEDPFFK VPVNKLAAAV SNFGYDLYRV RSSMSPTTNV LLSPLSVATA LSALSLGAEQ RTESIIHRAL YYDLISSPDI HGTYKELLDT VTAPQKNLKS ASRIVFEKKL RIKSSFVAPL EKSYGTRPRV LTGNPRLDLQ EINNWWQAQM KGKLARSTKE IPDEISILLL GVAHFQGWV TKFDSRKTSL EDFYLDEERT VRVPMMSDPK AVLRYGLDSD LSCKIAQLPL TGSMIIFFL PLKVTQNLTL IEESLTSEFI HDIDRELKTV QAVLTPKLLK LSYEGEVTKS LQEMKLQSLF DSPDFSKITG KPIKLTQVEH RAGFEWNEDG AGTTPSPGLQ PAHLTFPLDY HLNQPFIFVL RDTDTGALLF IKGILDPRGP.</pre>

Application Note

It is recommended to reconstitute the lyophilized PEDF in sterile 18M-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

