



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Pigment Epithelium-Derived Factor (PEDF)

Catalog No.
228-11221

Source
Escherichia Coli.

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.

Description:

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.

Formulation:

The sterile filtered concentrated (1mg/ml) protein solution was lyophilized with 20mM PBS & 150mM NaCl pH-7.4.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Solubility:

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

Stability:

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.

Purity:

Greater than 95% as determined by SDS-PAGE.

Amino Acid Sequence:

MQNPASPPEEGSPDPDSTGALVEEEDPFFKVPVNKLAAAVSNFGYDLYRVR
SSMSPTTNVLLSPLSVATALSALSLGAEQRTESIHRALYYDLISSPDIHGTYK
ELLDTVTAPQKNLKSASRIVFEKKLRKSSFVAPLEKSYGTRPRVLTGNPRLD
LQEINN WVQAQMKGKLARSTKEIPDEISILL LGVAHF KGQWVTKFDSRKTS
LEDFYLDEERTVRVPMMSDPKAVLRYGLDSDL SCKIAQLPLTGSM SIIFFLPL
KVTQNLTLIEESLTSEFIHDIDRELKTVQAVLTVPKLLSYEGEVTKSLQEMKL
QSLFDSPDFSKITGKPIKLTQVEHRAGFEWNEDGAGTTPSPGLQPAHLTFPL
DYHLNQPFIFVLRD TDTGALLFIGKILDPRGP

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