

Serpinf1

Recombinant Mouse Pigment Epithelium-derived Factor

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|--------------------|---------|------------------|-------|
| Catalog No. | CRP279A | Quantity: | 20 µg |
| | CRP279B | | 50 µg |

Alternate Names: PEDF, Caspin, Serpin F1, Stromal cell-derived factor 3, SDF-3

Description: Pigment Epithelium-derived Factor (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 lipaselinked 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.

UniProt ID: P97298

Source: HEK293

Molecular Weight: 45.8 kDa predicted (409 aa)
60-65 kDa on SDS-PAGE due to glycosylation.

Formulation: Lyophilized from sterile-filtered PBS, pH 7.4
May contain trehalose, mannitol and Tween 80 as cryoprotectants. Refer to datasheet for lot-specific formulation.

Purity: > 95% by SDS-PAGE

Endotoxin Level: < 1.0 EU/µg of rmPEDF as determined by LAL analysis

Activity: Measured by its binding ability in a functional ELISA.
Immobilized mouse SERPINF1-His at 10 µg/ml (100 µl/well) can bind biotinylated human GST-Casein kinase II subunit alpha with a linear range of 0.31-2.5 µg/ml.

Amino Acid Sequence: Derived from the DNA sequence encoding the extracellular domain (Met 1-Thr 417) of mouse PEDF with a C-terminal polyhistidine tag.

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: Shipped at ambient temperature. Upon receipt store at -20°C to -80°C for up to 1 year. Upon reconstitution, store in working aliquots at -20°C to -80°C.
Avoid repeated freeze/thaw cycles.

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