

Human Serpin F1/PEDF, C-His Tag Protein

HA211403



Product name:	Human Serpin F1/PEDF, C-His Tag
Species reactivity:	Human
Bio-Activity:	Testing in progress.
Protein construction description:	A DNA sequence encoding the human Serpin F1/PEDF protein (P36955) (Gln 20-Pro 418) was expressed with a His tag at the C-terminus.

Background: Pigment epithelium-derived factor (PEDF) also known as serpin F1 (SERPINF1), is a multifunctional secreted protein that has anti-angiogenic, anti-tumorigenic, and neurotrophic functions. Found in vertebrates, this 50 kDa protein is being researched as a therapeutic candidate for treatment of such conditions as choroidal neovascularization, heart disease, and cancer.[5] In humans, pigment epithelium-derived factor is encoded by the SERPINF1 gene. PEDF has a variety of functions including antiangiogenic, antitumorigenic, and neurotrophic properties. Endothelial cell migration is inhibited by PEDF. PEDF suppresses retinal neovascularization and endothelial cell proliferation. The antiangiogenic residues 24-57 were shown to be sufficient at inhibiting angiogenesis. PEDF is also responsible for apoptosis of endothelial cells either through the p38 MAPK pathway or through the FAS/FASL pathway. Antiangiogenic function is also conferred by PEDF through inhibition of both VEGFR-1 and VEGFR-2. The antitumorigenic effects of PEDF are not only due to inhibition of supporting vasculature, but also due to effects on the cancer cells themselves. PEDF was shown to inhibit cancer cell proliferation and increase apoptosis via the FAS/FASL pathway. VEGF expression by cancer cells is inhibited by PEDF. PEDF also displays neurotrophic functions. Retinoblastoma cells differentiate into neurons due to the presence of PEDF. Expression of PEDF in the human retina is found at 7.4 weeks of gestation, suggesting it may play a role in retinal neuron differentiation.

Purity:	>95% as determined by SDS-PAGE.
Endotoxin:	Less than 1.0 EU per µg by the LAL method.
Fragment region:	Serpin F1/PEDF (20-418)
Source:	HEK293
Accession:	P36955
Predicted molecular mass:	46.2 kD
Formulation:	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution:	Reconstitute at 250 µg/ml in sterile water.
Storage:	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

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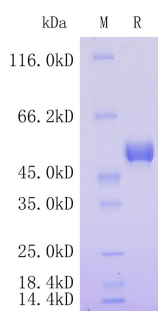


Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".
