

# Human PEDF ELISA Kit (Serp1nF1) ab213815

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## Overview

**Product name** Human PEDF ELISA Kit (Serp1nF1)

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
1	16	5.62ng/ml	0.259	4.6%
2	16	10.1ng/ml	0.444	4.4%
3	16	25.5ng/ml	1.07	4.2%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	6.23ng/ml	0.467	7.5%
2	24	12.1ng/ml	0.835	6.9%
3	24	26.4ng/ml	1.95	7.4%

**Sample type** Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** < 20 pg/ml

**Range** 0.78 ng/ml - 50 ng/ml

**Assay time** 3h 30m

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview** The Human PEDF Enzyme-Linked Immunosorbent Assay (ELISA) kit (Serp1nF1) (ab213815) is designed for the quantitative detection of Human PEDF in cell culture supernatants, cell lysates, tissue homogenates, serum and plasma (heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

polyclonal antibody from goat specific for PEDF has been pre-coated onto 96-well plates. Standards (NSO, M1-P418) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for PEDF is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human PEDF amount of sample captured in plate.

**Notes** Pigment epithelium-derived factor (PEDF) is also known as serpin F1 (SERPINF1). In humans, it is encoded by the SERPINF1 gene. PEDF has a variety of functions including antiangiogenic, anti-tumorigenic, and neurotrophic properties. It suppresses retinal neovascularization and endothelial cell proliferation. And Antiangiogenic function is also conferred by PEDF through inhibition of both VEGFR-1 and VEGFR-2. In addition, the anti-tumorigenic effects of PEDF are not only due to inhibition of supporting vasculature, but also due to effects on the cancer cells themselves. PEDF is shown to inhibit cancer cell proliferation and increase apoptosis via the FAS/FASL pathway. 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.

**Platform** Pre-coated microplate (12 x 8 well strips)

**Properties**

**Storage instructions** Store at -20°C. Please refer to protocols.

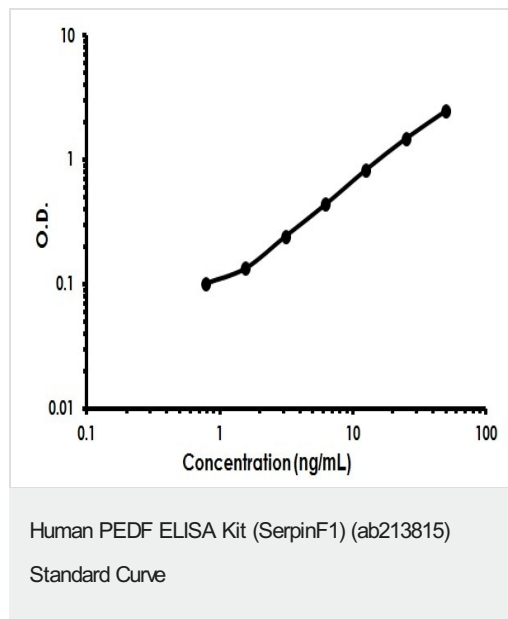
Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Adhesive Plate Seal		4 units	4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Human PEDF coated Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti-Human PEDF antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant Human PEDF standard		2 vials	2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

**Function** Neurotrophic protein; induces extensive neuronal differentiation in retinoblastoma cells. Potent inhibitor of angiogenesis. As it does not undergo the S (stressed) to R (relaxed) conformational transition characteristic of active serpins, it exhibits no serine protease inhibitory activity.

**Tissue specificity** Retinal pigment epithelial cells and blood plasma.

<b>Sequence similarities</b>	Belongs to the serpin family.
<b>Developmental stage</b>	Expressed in quiescent cells.
<b>Domain</b>	The N-terminal (AA 44-121) exhibits neurite outgrowth-inducing activity. The C-terminal exposed loop (AA 382-418) is essential for serpin activity.
<b>Post-translational modifications</b>	The N-terminus is blocked. Extracellular phosphorylation enhances antiangiogenic activity. N- and O-glycosylated. O-glycosylated with a core 1 or possibly core 8 glycan.
<b>Cellular localization</b>	Secreted. Melanosome. Enriched in stage I melanosomes.

## Images



Human PEDF ELISA Kit (Serp1nF1) (ab213815) Standard Curve

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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