Data Sheet (Cat.No.TMPY-01328)

TargetMol

PEDF Protein, Human, Recombinant (His)

General Information

Synonyms:	serpin peptidase inhibitor, clade F， member 1;OI6;OI12;EPC-1;PEDF;PIG35
Protein Construction:	A DNA sequence encoding the human SERPINF1 (NP_002606.3) (Met 1-Pro 418) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P36955
Molecular Weight:	45.8 kDa (predicted); 45.8 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 98 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Pigment epithelium-derived factor, also known as PEDF, Serpin F1, and SERPINF1, is a multiple functional protein that has both anti-angiogenic activity and neurotrophic activity at the same time. PEDF is a secreted glycoprotein that belongs to the noninhibitory serpin. It has an alpha/beta core serine-protease inhibitor domain, three major beta-sheets, and ten alpha-helices. PEDF does not inhibit either serine or cysteine proteinases. PEDF exerts diverse physiological activities including anti-angiogenesis, anti-vasopermeability, anti-tumor, and neurotrophic

activities. PEDF acts via multiple high affinity ligands and cell receptors. It has been described as a natural angiogenesis inhibitor with neurotrophic and immune-modulation properties. PEDF induces macrophages apoptosis and necrosis through the activation of peroxisome proliferator-activated receptor-gamma by which PEDF could modulate inflammatory reactions in septic shock. It balances angiogenesis in the eye and blocks tumor progression.

Reference

Filleur, S. et al., 2009. J Cell Biochem. 106 (5): 769-75.
Kawaguchi, T. et al., 2010, Curr Mol Med. 10 (3): 302-11.
Yamagishi, SI. et al., 2010, Curr Mol Med. 10 (3): 284-91.
Nakamura, T. et al., 2010, Curr Mol Med. 10 (3): 312-6.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481