

# Recombinant Mouse SerpinF2/SERPINF2 Protein (His Tag)



Catalog Number:PKSM040830

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

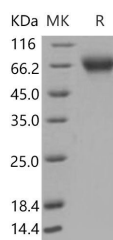
## Description

<b>Synonyms</b>	Alpha-2-antiplasmin;Alpha-2-AP;Alpha-2-plasmin inhibitor;Alpha-2-PI;Serpin F2;Serpinf2
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Lys 491
<b>Accession</b>	NP_032904.1
<b>Calculated Molecular Weight</b>	53.6 kDa
<b>Observed molecular weight</b>	60-65 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH <sub>2</sub> (Anaspec, Catalog#27114). The IC <sub>50</sub> value is < 0.5 nM as measured in 100µL reaction mixture containing 1.25 ng trypsin (Sigma, Catalog#T1426), 10 µM substrate, 50 mM Tris, 10 mM CaCl <sub>2</sub> , 0.15 M NaCl, pH 7.5.

## Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 97 % as determined by reducing SDS-PAGE.

## Background

SerpinF2, also known as alpha-2 antiplasmin (alpha-2 AP), is a member of the Serpin superfamily. SerpinF2 is the principal physiological inhibitor of serine protease plasmin, and as well as, an efficient inhibitor of trypsin and

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chymotrypsin. This protease is produced mainly by liver and kidney, and also expressed in muscle, intestine, central nervous system, and placenta also express this protein at a moderate level. It is indicated that Serpin F2 is a key regulator of plasmin-mediated proteolysis in these tissues. Alpha-2 AP is an unusual serpin in that it contains extensive N- and C-terminal sequences flanking the serpin domain. The N-terminal sequence is crosslinked to fibrin by factor XIIIa, whereas the C-terminal region mediates the initial interaction with plasmin. SerpinF2 is one of the inhibitors of fibrinolysis, which acts as the primary inhibitor of plasmin(ogen). It is a specific plasmin inhibitor, and is important in modulating the effectiveness and persistence of fibrin with respect to its susceptibility to digestion and removal by plasmin. Alpha-2 AP plays the dominant role in inhibiting both plasma clot lysis and thrombus lysis, and accordingly, the congenital deficiency of Alpha-2 antiplasmin causes a rare bleeding disorder because of increased fibrinolysis. Thus, it may be a useful target for developing more effective treatment of thrombotic diseases.

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