

Recombinant Mouse SerpinF2/SERPINF2 Protein (His Tag)

Catalog Number: PKSM040830

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

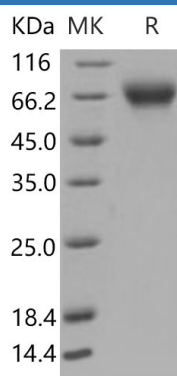
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse SerpinF2/SERPINF2 protein Met 1-Lys 491, with an C-terminal His
Calculated MW	53.6 kDa
Observed MW	60-65 kDa
Accession	NP_032904.1
Bio-activity	Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH ₂ (Anaspec, Catalog#27114). The IC ₅₀ 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 ₂ , 0.15 M NaCl, pH 7.5.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

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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 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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