



**monoclonal antibodies against human  
FSAP Marburg I variant**

**Product No. 4611 and 4612**

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### Description

Factor VII-activating protease (FSAP) is a serin-protease present in human plasma as a single-chain proenzyme (64 kDa) at a concentration of 12 µg/ml. The proenzyme can be activated by an autocatalytic mechanism or by urokinase generating the active two-chain form (40 and 30 kDa).

FSAP has the ability to activate both coagulation factor VII independent of tissue factor and pro-urokinase. Thus, FSAP has a dual function as a potent pro-coagulant and a pro-fibrinolytic agent.

Recently a frequent variant of FSAP with a single nucleotide polymorphism (SNP) has been identified, termed "Marburg I" (FSAP MI). The FSAP Marburg I variant shows diminished activity in pro-urokinase activation, whereas the capacity to activate Factor VII is normal. It seems likely that FSAP Marburg I, due to the resulting hemostatic imbalance, may promote the development of thromboembolic diseases. Accordingly, the FSAP Marburg I variant was found to be a significant risk predictor for the evolution and progression of carotid stenosis and associated with idiopathic venous thromboembolism.

### Preparation

The antibodies are murine IgG monoclonal antibodies purified from cell culture supernatants via Protein G affinity chromatography. Synthetic peptide : MAP-ECE, KLH-conjugated was used as the immunizing agent.

### Presentation

Screw capped clear glass vial containing 250 µg of purified IgG, lyophilized from 250 µL solution of 0.15 M Phosphate Buffered Saline, 0.2 M mannitol, pH 7.4

### Reconstitution

Add 250 µL of filtered deionized or sterile water to generate a 1 mg/mL stock solution of each antibody.

### Storage

Store lyophilized antibody at 2°-8°C. Aliquot and store reconstituted antibody at -20°C or colder.

### Reactivity and Known Applications

<b>Product No.</b>	4611	4612
<b>Clone No.</b>	2004-9/ 014	2004-151/ 013
<b>Isotype</b>	IgG <sub>2a</sub>	IgG <sub>1</sub>
<b>Applications</b>	ELISA	ELISA

### References

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2. Factor VII-activating protease (FSAP): vascular functions and role in atherosclerosis. Kanse et al., Thromb Haemost. 2008 Feb;99(2):286-289.
3. Factor Seven Activating Protease (FSAP) expression in human monocytes and accumulation in unstable coronary atherosclerotic plaques. Parahuleva et al. Atherosclerosis. 2008 Jan;196(1):164-171.
4. Factor VII activating protease (FSAP): a novel protease in hemostasis. Roemisch, Biol Chem. 2002 Jul-Aug;383(7-8):1119-1124.
5. Factor VII and single-chain plasminogen activator-activating protease: activation and autoactivation of the proenzyme. Kannemeier et al., J Biochem. 2001 Jul;268(13):3789-96.
6. The frequent Marburg I polymorphism impairs the pro-urokinase activating potency of the factor VII activating protease (FSAP). Roemisch et al., Blood Coagul Fibrinolysis. 2002 Jul;13(5):433-41.
7. The factor VII activating protease G511E (Marburg) variant and cardiovascular risk. Ireland et al., Thromb Haemost. 2004 Nov;92(5):986-92.
8. Marburg I polymorphism of factor VII-activating protease is associated with idiopathic venous thromboembolism. Hoppe et al., Blood. 2005 Feb 15;105(4):1549-51.
9. Marburg I polymorphism of factor VII-activating protease: a prominent risk predictor of carotid stenosis. Willeit et al., Circulation. 2003 Feb 11;107(5):667-70.

### Related Products

IMUBIND® FSAP ELISA (Product no. 876), IMUBIND® FSAP Marburg I ELISA (Product no. 878), monoclonal antibody against FSAP (Product no. 4601, 4602 and 4603).

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