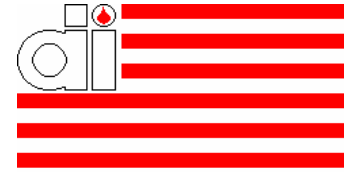


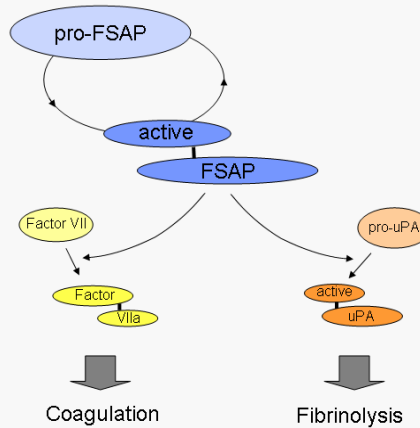
# Fact sheet: Factor VII-activating protease (FSAP)



## Diagnostic relevance

Factor VII-activating protease (FSAP) is a serine-protease present in human plasma as a single-chain pro-enzyme (64 kDa) at a concentration of 12 µg/ml. The pro-enzyme can be activated by an autocatalytic mechanism or by urokinase generating the active two-chain form (40 and 30 kDa). The activity of FSAP is strongly dependent on Ca<sup>2+</sup> ions and is efficiently inhibited by α<sub>2</sub>-antiplasmin and aprotinin.

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.



## Indication

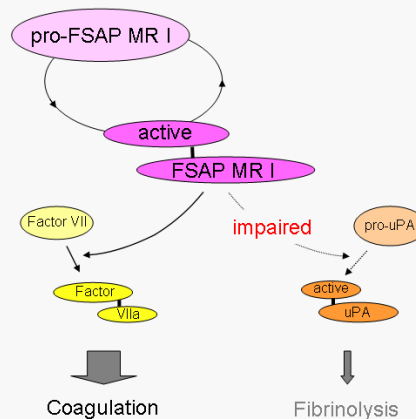
- Thromboembolic diseases
- Risk predictor of carotid stenosis

## Aliases

- Plasma hyaluronan binding protein (PHBP)
- Hyaluronan-binding protein 2 (HABP2)

## Pathophysiology

Recently a frequent (5 - 10% of healthy subjects) variant of FSAP with a single nucleotide polymorphism (SNP) has been identified, termed "Marburg I" (FSAP-MI). The FSAP-MI variant shows diminished activity in pro-urokinase activation, whereas the capacity to activate Factor VII is normal. It seems likely that FSAP-MI, due to the resulting hemostatic imbalance, may promote the development of thromboembolic diseases. Accordingly, the FSAP-MI variant was found to be a significant risk predictor for the evolution and progression of carotid stenosis.



## Method

ELISA

## Sample

Citrated plasma

## Preanalytics

Heparanized plasma is not suitable

## References

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