

Sheep anti-human TAFI
(Thrombin Activatable Fibrinolysis Inhibitor)
Peroxidase Conjugated IgG
0.2 mg

Product #: SATAFI-HRP
Lot #: XXXX
Expiry date: XXXX

Store at -10 to -20°C

For Research Use Only.
Not for use in diagnostic procedures.

Description of TAFI (proCPU)

TAFI (Thrombin Activatable Fibrinolysis Inhibitor), also referred to as plasma procarboxypeptidase-B, procarboxypeptidase-U and R, circulates in plasma as a zymogen with a mass of 58,000 daltons (1-6). Proteolytic activation of TAFI yields an N-terminally derived activation peptide and the C-terminal portion corresponding to the metalloprotease, activated TAFI (TAFIa). TAFIa exhibits exopeptidase activity with carboxypeptidase B-like substrate specificity capable of catalyzing the hydrolysis of C-terminal lysine and arginine residues. Cleavage of these residues on fibrin by TAFIa attenuates clot lysis by inhibiting the formation of the ternary activation complex comprising fibrin cofactor, tPA and plasminogen, thereby inhibiting plasmin generation. Although TAFI can be activated by various proteases including thrombin and plasmin, the physiological activator is proposed to be the complex thrombin-thrombomodulin since the rate of activation is stimulated 1250-fold compared to thrombin alone (4). However, the rate of TAFI activation is highly dependent upon its plasma concentration. Since TAFIa apparently plays a key role in connecting coagulation and fibrinolysis and significantly increases clot stability, determination of plasma concentration of TAFI is likely crucial to assess its subsequent potential antifibrinolytic effects¹⁻⁶.

REFERENCES and REVIEWS

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2. Hendriks, D., Scharpe, S., van Sande, M., Lommaert, M.P., Characterization of a carboxypeptidase in human serum distinct from carboxypeptidase N. *J.Clin.Chem.Clin.BioChem.* **27**:277-285, 1989.
3. Campbell, W., Okada, J. An Arginine specific carboxypeptidase generated in blood during coagulation of inflammation which is unrelated to carboxypeptidase N or its subunits. *Biochem.Biophys.Res.Comm.* **162**:933-939, 1989.
4. Bajzar, L., Morser, J., Nesheim, M.E. TAFI, or procarboxypeptidase B, couples the coagulation and fibrinolytic cascades through the thrombin-thrombomodulin complex. *J.Biol.Chem.* **271**:16603-16608, 1996.
5. Mosnier, L.O., von Dem Borne, P.A. Meijers, J.C., Plasma TAFI levels influence the clot lysis time in healthy individuals in the presence of an intact intrinsic pathway of coagulation. *Thromb.Haemost.* **80**:829-835, 1998.
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Product Specifications

Description:

Vial containing XXXX ml of whole IgG conjugated to horseradish peroxidase (HRP) through carbohydrate groups. Total protein is 0.2 mg.

Format:

IgG-HRP conjugate as a clear, slightly red-brown liquid.

Host Animal:

Sheep

Immunogen:

Human TAFI purified from plasma.

Concentration:

IgG-HRP concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E^{1\%}_{280}$) of 14.

Buffer:

A buffered stabilizer solution containing 50% (v/v) glycerol.

Storage:

Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity.

Specificity:

Prior to conjugation, this antibody was specific for TAFI as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of peroxidase-labeled antibodies to TAFI.

Rz Ratio (Reinheitsszahl, A_{403}/A_{280}):

XXXX as determined spectrophotometrically.