

REPRESENTATIVE DATASHEET



Sheep anti-human Factor V (FV)

Biotinylated Affinity-Purified IgG

0.1 mg

Product #: SAF5-APBIO

Lot #: XXXX

Expiry date: XXXX

Store at 2°C to 8°C

For Research Use Only.

Not for use in diagnostic procedures.

Description of Factor V (FV)

Factor V (formerly referred to as accelerator globulin and labile factor) is a large glycoprotein (320 kDa) that is produced in the liver. The gene that encodes factor V (FV) is located on chromosome 1. A congenital deficiency of FV is a hemorrhagic disorder inherited as an autosomal recessive disease.

The concentration of FV in plasma is typically 10 µg/mL. FV is a pro-cofactor that is activated through limited proteolysis by thrombin, or by activated factor X in the presence of phospholipid surface. Other physiologic activators of FV include plasmin, neutrophil elastase and platelet calpain. The activated cofactor (FVa) is an essential component of the prothrombin activator complex, which consists of FVa, activated factor X, calcium and anionic phospholipid surface. The intact prothrombinase complex activates prothrombin to thrombin at a rate 300,000-fold greater than activated factor X alone. In a positive feedback loop, the thrombin generated accelerates its own generation by activating more FV to FVa. Thrombin also acts to down-regulate FVa indirectly by activating Protein C, which inactivates FVa cofactor activity¹⁻³.

REFERENCES and REVIEWS

1. Kane WH, Davie EW; Blood Coagulation Factors V and VIII: Structural and functional similarities and their relationship to hemorrhagic and thrombotic disorders. *Blood* 71:539, 1988.
2. Hoyer, LW, Wyshock EG, Colman RW, in Hemostasis and Thrombosis, 3rd Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp. 109-133, J.B. Lippincott Co., Philadelphia, 1994.
3. Nesheim ME, Katzmann JA, Tracy PB, Mann KG; in Methods in Enzymology 80:249, 1980.

Product Specifications

Description:

Vial containing XXXX mL of affinity-purified IgG conjugated to biotin. Total protein is 0.1 mg.

Format:

APIgG-biotin conjugate as a clear, colourless liquid.

Host Animal:

Sheep

Immunogen:

Human factor V purified from plasma.

Concentration:

APIgG-biotin concentration is XXXX mg/mL, determined by absorbance using an extinction coefficient ($E_{1\%}^{1\text{cm}}$) of 14.

Buffer:

Phosphate-buffered saline containing 1 mg/mL bovine albumin and 0.1% sodium azide, pH 7.4.

Storage:

Store at 2°C to 8°C.

Specificity:

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

Applications:

Suitable as a source of biotinylated antibodies to human factor V.

Incorporation of Biotin:

XXXX moles biotin per mole IgG as determined by HABA assay.