



Sheep Anti-Human Factor V (F.V) Affinity-Purified IgG (0.5 mg)

Catalogue: SAFV-AP

Lot: SAMPLE

Expiry date: **/****

Store at -10 to -20°C.

For Research Use Only.

Not for use in diagnostic procedures.

Description of Factor V

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 (F.V) is located on chromosome 1. A congenital deficiency of F.V is a hemorrhagic disorder inherited as an autosomal recessive disease. The concentration of F.V in plasma is typically 10 µg/ml. F.V 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 F.V include plasmin, neutrophil elastase and platelet calpain. The activated cofactor (F.Va) is an essential component of the prothrombin activator complex, which consists of F.Va, 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 F.V to F.Va. Thrombin also acts to down-regulate F.Va indirectly by activating Protein C, which inactivates F.Va 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
- Document OP10046, rev 1

Product Specifications

Description:

Vial containing 0.250 ml of IgG purified by affinity-chromatography on immobilized F.V. Total protein is 0.5 mg.

Format:

Affinity-purified IgG (APIgG), clear liquid.

Host Animal:

Sheep

Immunogen:

Human Factor V purified from plasma.

Concentration:

APIgG concentration is 2.0 mg/ml, determined by absorbance using an extinction coefficient ($E_{280}^{1\%}$) of 13.4.

Buffer:

10 mM HEPES, pH 7.4, 150 mM NaCl, 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.

Specificity:

This antibody was specific for F.V as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of enriched antibodies to F.V.

Neutralizing Activity:

Not determined

Related Products

SAFV-IG	Sheep anti-Human FV, IgG from antiserum
SAFV-HRP	Sheep anti-Human FV, IgG-peroxidase conj
SABFV-IG	Sheep anti-Bovine FV, IgG from antiserum
SABFV-AP	Sheep anti-Bovine FV, affinity purified IgG
SABFV-HRP	Sheep anti-Bovine FV, IgG-peroxidase conj
FV-EIA	Paired antibody set for ELISA of FV, 5 x 96 wells
FV-DP	Human plasma deficient in FV, immune depleted

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