

**\*\*REPRESENTATIVE DATASHEET\*\***

## Sheep anti-human Factor V (FV)

Peroxidase Conjugated IgG

0.2 mg

**Product #:** SAFV-HRP

**Lot #:** XXXX

**Expiry date:** XXXX

Store at -10 to -20°C

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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 activity<sup>1-3</sup>.

### 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, 3<sup>rd</sup> 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 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 factor V purified from plasma.

#### Concentration:

IgG-HRP concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ( $E_{280}^{1\%}$ ) 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 factor V as demonstrated by immunoelectrophoresis and ELISA.

#### Applications:

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

#### Rz Ratio (Reinheitszahl, $A_{403}/A_{280}$ ):

XXXX as determined spectrophotometrically.

#### Related Products:

Cat #: SAFV-IG	Sheep anti-human FV, whole IgG from antisera
Cat #: SAFV-AP	Sheep anti-human FV, affinity purified IgG
Cat #: FV-EIA	Paired antibody set for ELISA of FV, 5 x 96 wells
Cat #: FV-DP	Human plasma deficient in FV, immune depleted

Visit our site ([www.affinitybiologicals.com](http://www.affinitybiologicals.com)) for details.

**Limited Warranty:** This product is warranted to perform in accordance with its labeling and literature. Affinity Biologicals Inc. disclaims any implied warranty of merchantability or fitness for any other purposes, and in no event will Affinity Biologicals Inc. be liable for any consequential damages arising out of aforesaid express warranty.

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