

**\*\*REPRESENTATIVE DATASHEET\*\*****Sheep anti-human Factor VIII (FVIII:C)  
Biotinylated Affinity-Purified IgG  
0.1 mg**

**Product #:** SAF8C-APBIO  
**Lot #:** XXXX  
**Expiry date:** XXXX

Store at 2°C to 8°C

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

**Description of Factor VIII (FVIII)**

Factor VIII (formerly referred to as antihemophilic globulin and Factor VIII:C) is a large glycoprotein (320 kDa) that circulates in plasma at approximately 200 ng/mL. Synthesized in the liver, the majority of Factor VIII is cleaved during expression, resulting in a heterogeneous mixture of partially cleaved forms of FVIII ranging in size from 200-280 kDa. The FVIII is stabilized by association with von Willebrand Factor to form a FVIII-vWF complex required for the normal survival of FVIII *in vivo* ( $t_{1/2}$  of 8-12 hours).

FVIII is a pro-cofactor that is activated through limited proteolysis by thrombin. In this process FVIIIa dissociates from vWF to combine with activated Factor IX, calcium and a phospholipid surface where it is an essential cofactor in the assembly of the Factor X activator complex. Once dissociated from vWF, FVIIIa is susceptible to inactivation by activated Protein C and by non-enzymatic decay.

Hemophilia A is a congenital bleeding disorder resulting from an X-chromosome-linked deficiency of FVIII. The severity of the deficiency generally correlates with the severity of the disease. Some Hemophiliacs (~10%) produce a FVIII protein that is partially or totally inactive. The production of neutralizing antibodies to FVIII also occurs in 5-20% of Hemophiliacs<sup>1-3</sup>.

**REFERENCES and REVIEWS**

1. Lollar P, Fay PJ, Fass DN; Factor VIII and Factor VIIIa. *Methods in Enzymology*, 222, pg 122, 1993.
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. Pittman DD, Kaufman RJ. Structure-Function Relationships of Factor VIII Elucidated through Recombinant DNA Technology. *Thromb. Haemostas.* 61:161-165, 1989.

**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 FVIII (FVIII:C) purified from concentrate.

**Concentration:**

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

**Buffer:**

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

**Storage:**

Store at 2°C to 8°C.

**Specificity:**

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

**Applications:**

Suitable as a source of biotinylated antibodies to Factor VIII.

**Incorporation of Biotin:**

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

**Related Products:**

Cat #: SAF8C-IG	Sheep anti-human Factor VIII, whole IgG from serum
Cat #: SAF8C-AP	Sheep anti-human Factor VIII, affinity-purified IgG (APIgG)
Cat #: SAF8C-HRP	Sheep anti-human Factor VIII, whole IgG-peroxidase
Cat #: SAF8C-APFTC	Sheep anti-human Factor VIII, FITC-conjugated APIgG
Cat #: F8C-EIA	Paired antibodies for Factor VIII ELISA, 4 x 96 wells
Cat #: FVIII-DP	Human plasma deficient in Factor VIII, immune depleted
Cat #: FVIII-AG	VisuLize™ Factor VIII Antigen ELISA Kit

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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