REPRESENTATIVE DATASHEET

Sheep anti-human Factor VIII

Peroxidase Conjugated IgG

0.2 mg

Product #: SAF8C-HRP-ASR
Lot #: XXXX
Expiry date: XXXX
DOM: XXXX
Store at –10 to -20°C

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Analyte Specific Reagent.
Analytical and performance characteristics are not established.

Description of Factor VIII (F.VIII)

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 F.VIII ranging in size from 200-280 kDa. The F.VIII is stabilized by association with von Willebrand Factor to form a F.VIII-vWF complex required for the normal survival of F.VIII *in vivo* ($t_{1/2}$ of 8-12 hours).

F.VIII is a pro-cofactor that is activated through limited proteolysis by thrombin. In this process F.VIIIa 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, F.VIIIa 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 F.VIII. The severity of the deficiency generally correlates with the severity of the disease. Some Hemophiliacs (~10%) produce a F.VIII protein that is partially or totally inactive. The production of neutralizing antibodies to F.VIII also occurs in 5-20% of Hemophiliacs [1-3].

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, 3rd 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 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 F.VIII (F.VIII:C) purified from concentrate.

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 F.VIII as demonstrated by immunoelectrophoresis and ELISA.

Rz Ratio (Reinheitszahl, A_{403}/A_{280}):
XXXX as determined spectrophotometrically.

Precautions:
Unused solution should be disposed of according to current local, State and Federal regulations. For a Material Safety Data Sheet for this product contact Affinity Biologicals Inc.

Visit our website (www.affinitybiologicals.com) for other related products.

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