



Sheep anti-rat von Willebrand Factor

Peroxidase Conjugated IgG

0.2 mg

Product #: SARTW-HRP

Lot #: XXXX

Expiry date: XXXX

Store at -10 to -20°C.

For Research Use Only.

Not for use in diagnostic procedures.

Description of von Willebrand Factor

von Willebrand Factor (vWF, also previously referred to as Factor VIII related antigen) is a large adhesive protein produced in endothelial cells and megakaryocytes. There are two critical functions of vWF, the first being its involvement in the process of platelet adhesion and aggregation through interaction with platelet receptor glycoprotein Ib, the second being the binding and stabilization of Factor VIII (antihemophilic factor) for secretion and transport in plasma. The vWF precursor protein is synthesized with a 95,000 dalton propeptide (also known as vWF antigen-II), believed to be involved in the intracellular multimerization of the vWF subunits. The mature vWF multimers are then packed into storage organelles within the cell (Weibel-Palade bodies) after which the propeptide is cleaved and released. vWF circulates as multimers of disulphide linked 220,000 dalton subunits and the molecular weight of these multimers ranges from 0.5-20 million daltons.

The concentration of vWF in human plasma is typically 10 µg/ml, but increased levels are often observed in pregnancy and other conditions of physiological stress. von Willebrand's disease (vWD) is perhaps the most common inherited bleeding disorder in humans and is the result of either quantitative deficiencies of vWF (vWD Types I & III), or one of a number of qualitative disorders of vWF structure and function (vWD Type II).

REVIEW ARTICLES

1. Montgomery RR, Collier BS, in **Hemostasis and Thrombosis**, 3rd Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp. 134-168, J.B. Lippincott Co., Philadelphia PA, USA, 1994.

2. Sadler JE; von Willebrand Factor (Minireview); JBC 266:34, pp 22777-22780, 1991.

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:

Rat vWF purified from plasma.

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 rat vWF as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of peroxidase-labeled antibodies to rat vWF.

Rz Ratio (Reinheitsszahl, A_{403}/A_{280}):

XXXX as determined spectrophotometrically.