

# Sheep Anti-Human VWF Polyclonal Antibody

## Sheep, Polyclonal (VWF)

Cat. No. DPAB1519SH

Lot. No. (See product label)

### PRODUCT INFORMATION

**Product Overview:** Sheep Antibody to Human Von Willebrand Factor (VWF)

**Antigen Description:** Factor VIII related antigen or von Willebrand factor is a multimeric glycoprotein. It has functional binding domains to platelet glycoprotein Ib, glycoprotein IIb/IIIa, collagen and heparin. von Willebrand factor is synthesized by endothelial cells and stored in the Weibel-Palade granules. It mediates platelet adhesion to injured vessel walls and serves as a carrier and stabilizer for coagulation factor VIII. von Willebrand factor is one of the most useful markers to identify endothelial (or megakaryocytic) lineage of neoplasms. As not all endothelial cells synthesize / store this molecule, about 30% of tumors of vascular origin fail to stain for factor VIII related antigen, regardless of whether they are benign or malignant. Staining for factor VIII related antigen has also been used to measure angiogenesis, an indicator of tumor recurrence.

**Specificity:** The unconjugated immunoglobulin gives no arcs when tested by IEP against human serum. Identity has been confirmed by double diffusion (Ouchterlony) against human VWF and an anti-human VWF of known specificity.

**Immunogen:** Human von Willebrand Factor Antigen (VWF): Prepared from citrated human plasma. >95% pure (SDS-PAGE)

**Host animal:** Sheep

**Format:** FITC, Liquid

**Applications:** Evaluated by direct immunofluorescence on frozen sections of human tonsil and a dilution range of 1:50 to 1:100 is recommended for this techniques. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.

**Purification:** Delipidated and, if necessary, absorbed to monospecificity by use of solid-phase absorbants. Following adsorption an immunoglobulin fraction is produced by ion-exchange chromatography and preservatives are added. The immunoglobulin fraction is then conjugated with fluorescein isothiocyanate (FITC). Unreacted fluorochrome is isolated by gel filtration and under-labelled immunoglobulin is removed by ion-exchange chromatography.

### ANTIGEN GENE INFORMATION

**Gene Name:** [VWF von Willebrand factor \[ Homo sapiens \]](#)

**Official Symbol:** VWF

**Synonyms:** VWF; von Willebrand factor; von Willebrand antigen 2; von Willebrand antigen II; F8VWF; F8; VWD; vWF; coagulation factor VIII VWF

**GeneID:** [7450](#)

**mRNA Refseq:** [NM\\_000552](#)

**Protein Refseq:** [NP\\_000543](#)

**MIM:** [193400](#)

**UniProt ID:** P04275

**Chromosome Location:** 12p13.3

**Pathway:** Complement and coagulation cascades; ECM-receptor interaction; Focal adhesion; Hemostasis; Integrin cell surface interactions

**Function:** chaperone binding; collagen binding; glycoprotein binding; immunoglobulin binding; integrin binding; protease binding; protein N-terminus binding; protein homodimerization activity

### PACKAGING

**Concentration:** 10mg/ml

**Buffer:** PBS, pH 7.2

**Preservative:** 0.099% Sodium azide

**Storage:** Upon receipt, store at 2–8°C. Slight precipitation can occur upon storage. This should be removed by centrifugation and should not affect performance characteristics.

**Warning:** This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0%. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

### REFERENCES

1. Liu Z et al. Notch1 loss of heterozygosity causes vascular tumors and lethal hemorrhage in mice. *J Clin Invest* 121:800-8 (2011). IHC-P; Mouse. PubMed: 21266774
2. Expression of P-selectin, von Willebrand and endothelin-1 after carotid artery stenting. Xia ZY, et al. *Vasa*, 2011 May. PMID 21638248.
3. Pathologic mechanisms of type 1 VWD mutations R1205H and Y1584C through in vitro and in vivo mouse models. Pruss CM, et al. *Blood*, 2011 Apr 21. PMID 21346256.

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