

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human vWF-A2 (ADAMTS13-cleaved) in Western blots. This antibody detects a nascent epitope that is generated upon cleavage of recombinant human (rh) vWF-A2 domain with ADAMTS13. It does not detect intact rhvWF-A2 domain.
Source	Monoclonal Mouse IgG ₁ Clone # 490628
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	KLH-conjugated human vWF synthetic peptide Asp1596-Tyr1605 Accession # NP_000543
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

von Willebrand Factor (vWF) is a large, multimeric glycoprotein made by endothelial cells and megakaryocytes. The pre-pro-vWF protein contains 2813 amino acids (aa), which consists of 22 aa signal peptide, 741 aa propeptide, and mature vWF monomer of 2050 aa (1-4). The pro-vWF undergoes dimerization in the endoplasmic reticulum (ER) through C-terminal "cysteine-knot" (CK) domain. The pro-vWF dimers are transported to Golgi and form multimers by forming disulfide bond in amino-terminal region of the mature form. The proteolytic processing of pro-region also occurs in Golgi. The matured vWF is stored in Weibel-Pallade bodies in endothelial cells and granules in megakaryocytes and platelets. The unusually-large vWF (ulvWF) multimers released from cells are very efficient in binding to platelets to form thrombus. The population of these highly active ulvWF multimers is controlled by a specific protease, ADAMTS13, which cleaves between residues Tyr1605 and Met1606 in the A2 domain of vWF. In the plasma, vWF appears as a series of large and intermediate multimers with molecular masses from several thousand to 500 kDa. vWF also performs hemostatic functions (3-5). In a high shear-stressed environment, vWF undergoes conformational change to expose a binding site for glycoprotein Iba. As a result, vWF facilitates aggregation of platelets. In addition to platelet binding, vWF binds coagulation factor VIII to increase the lifetime of FVIII in plasma. The purified rhvWF-A2 contains the A2 domain of vWF.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.