

DESCRIPTION

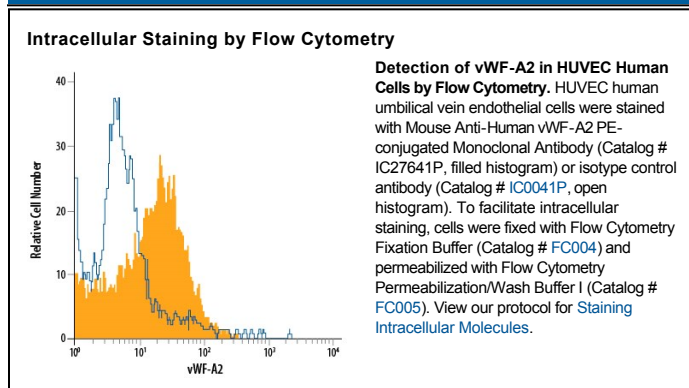
Species Reactivity	Human
Specificity	Detects human vWF-A2 in direct ELISAs and Western blots. Detects an epitope N-terminal to the ADAMTS13 cleavage site between aa 1498–1605. Another antibody (clone 210909, Catalog # MAB2764) recognizes an epitope on the C-terminal side (aa 1606–1665) of the ADAMTS13 cleavage site.
Source	Monoclonal Mouse IgG _{2B} Clone # 210905
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human vWF-A2 Asp1498-Val1665 Accession # P04275
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10 ⁶ cells	See Below

DATA



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 a 22 aa signal peptide, a 741 aa propeptide and a mature vWF monomer of 2050 aa (1–4). The pro-vWF undergoes dimerization in the endoplasmic reticulum (ER) through a C-terminal “cysteine-knot” (CK) domain. The pro-vWF dimers are transported to the Golgi and associate into multimers by forming disulfide bonds in the amino-terminal region of the mature form. Proteolytic processing of the pro-region also occurs in the Golgi. Mature 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 size 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 changes to expose a binding site for glycoprotein Iba. As a result, vWF facilitates the 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.

References:

1. Sadler, J. E. (1998) *Annu. Rev. Biochem.* **67**:395.
2. Ruggeri, Z. M. (2003) *Cur. Opin. Hemat.* **10**:142.
3. Michiels, J. J. *et al.* (2006) *Clin. Appl. Thromb. Hemost.* **12**:397.
4. Groot, E. *et al.* (2007) *Cur. Opin. Hemat.* **14**:284.
5. Lenting, P. J. *et al.* (2007) *J. Thromb. Haemos.* **5**:1353.

Human vWF-A2 PE-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 210905

Catalog Number: IC27641P

100 TESTS