# abcam

# Product datasheet

# Alexa Fluor® 488 Anti-Von Willebrand Factor antibody [EPSISR15] ab195028

Recombinant RabMAb

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#### Overview

Product name Alexa Fluor® 488 Anti-Von Willebrand Factor antibody [EPSISR15]

**Description** Alexa Fluor® 488 Rabbit monoclonal [EPSISR15] to Von Willebrand Factor

Host species Rabbit

**Conjugation** Alexa Fluor® 488. Ex: 495nm, Em: 519nm

Tested applications Suitable for: Flow Cyt (Intra), ICC/IF

Species reactivity Reacts with: Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control ICC/IF: HepG2 cells. Flow Cyt (intra): HepG2 cells.

General notes

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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## **Properties**

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C. Avoid freeze / thaw cycle.

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Store In the Dark.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

Purity Protein A purified

Clonality Monoclonal
Clone number EPSISR15

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab195028 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/500.  ab199091 - Rabbit monoclonal lgG (Alexa Fluor® 488), is suitable for use as an isotype control with this antibody.
ICC/IF		1/100.

# **Target**

**Function** 

Important in the maintenance of hemostasis, it promotes adhesion of platelets to the sites of vascular injury by forming a molecular bridge between sub-endothelial collagen matrix and platelet-surface receptor complex GPlb-IX-V. Also acts as a chaperone for coagulation factor VIII, delivering it to the site of injury, stabilizing its heterodimeric structure and protecting it from premature clearance from plasma.

**Tissue specificity** 

Plasma.

Involvement in disease

Defects in VWF are the cause of von Willebrand disease (VWD) [MIM:277480]. VWD defines a group of hemorrhagic disorders in which the von Willebrand factor is either quantitatively or qualitatively abnormal resulting in altered platelet function. Symptoms vary depending on severity and disease type but may include prolonged bleeding time, deficiency of factor VIII and impaired platelet adhesion. Type I von Willebrand disease is the most common form and is characterized by partial quantitative plasmatic deficiency of an otherwise structurally and functionally normal Willebrand factor; type II is associated with a qualitative deficiency and functional anomalies of the Willebrand factor; type III is the most severe form and is characterized by total or near-total absence of Willebrand factor in the plasma and cellular compartments, also leading to a profound deficiency of plasmatic factor VIII.

Sequence similarities

Contains 1 CTCK (C-terminal cystine knot-like) domain.

Contains 4 TIL (trypsin inhibitory-like) domains.

Contains 3 VWFA domains.
Contains 3 VWFC domains.
Contains 4 VWFD domains.

**Domain** 

The von Willebrand antigen 2 is required for multimerization of vWF and for its targeting to

Post-translational

modifications

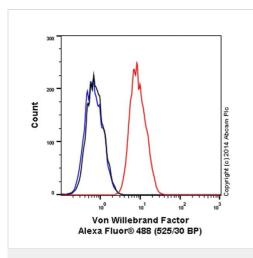
**Cellular localization** 

storage granules.

All cysteine residues are involved in intrachain or interchain disulfide bonds. N- and O-glycosylated.

Secreted. Secreted > extracellular space > extracellular matrix. Localized to storage granules.

#### **Images**



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Von Willebrand Factor antibody [EPSISR15] (ab195028)

Overlay histogram showing HepG2 cells stained with ab195028 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab195028, 1/500 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) Alexa Fluor® 488 used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

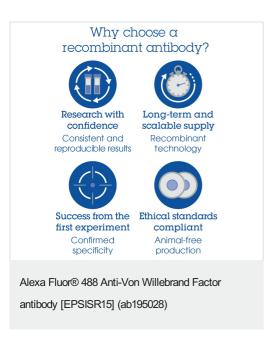
This antibody gave a positive signal in HepG2 fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Von Willebrand Factor antibody [EPSISR15] (ab195028)

ab195028 staining Von Willebrand Factor in HepG2 cells. The cells were fixed with 100% methanol (5 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab195028 at 1/100 dilution (shown in green) and <a href="mailto:ab195889">ab195889</a>, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 594, shown in red) at 2µg/ml overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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