Product datasheet

Anti-Von Willebrand Factor antibody ab9378

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Overview

Product name: Anti-Von Willebrand Factor antibody
Description: Rabbit polyclonal to Von Willebrand Factor
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, IHC-Fr, IHC-P, Flow Cyt, WB
Species reactivity: Reacts with: Human
Predicted to work with: Mouse
Immunogen: Factor VIII related antigen isolated from human plasma.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Liquid antiserum
Purity: Protein A purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab9378 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐️</td>
<td>1/100.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐☆</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐☆</td>
<td>1/50 - 1/100.</td>
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<tr>
<td>Application</td>
<td>Abreviews</td>
<td>Notes</td>
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<tr>
<td>Flow Cyt</td>
<td>⭐⭐⭐⭐💫</td>
<td>1/250. Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐💫</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 250 kDa (predicted molecular weight: 309 kDa).</td>
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**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 GP\(\text{Ib-IX-V}\). 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 storage granules.

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

**Cellular localization**
Secreted. Secreted > extracellular space > extracellular matrix. Localized to storage granules.

**Images**
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling Von Willebrand Factor with ab9378.

Anti-Von Willebrand Factor antibody (ab9378) at 1 µg/ml + Lung (Human) Tissue Lysate at 10 µg

**Secondary**
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

**Predicted band size:** 309 kDa
**Observed band size:** 250 kDa
**Additional bands at:** 40 kDa, 50 kDa, 65 kDa. We are unsure as to the identity of these extra bands.

Many bands of varying sizes can be seen on Western blots, perhaps indicating differential processing by ADAMTS13 and other enzymes.
**Central Panel:** ab9378 staining Von Willebrand Factor in human PMN cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% TritonX-100 + 2% BSA in PBS and blocked with 2% BSA for 1 hour at 22°C. Samples were incubated with primary antibody 1/100 in blocking buffer for 4 hours at 37°C. An Alexa Fluor® 568-conjugated Goat polyclonal to rabbit IgG, dilution 1/100, was used as secondary antibody.

**Top panel:** Nuclei counterstained with DAPI (blue).

**Bottom panel:** Overlay

**Flow Cytometry - Anti-Von Willebrand Factor antibody (ab9378)**

ab9378 staining Von Willebrand Factor in Human platelet cells by Flow cytometry. Cells were fixed in paraformaldehyde and permeabilized using 0.1% Triton-X-100 in 2% BSA for 15 minutes. Primary antibody used at a 1/250 dilution and incubated for 18 hours at 4°C. The secondary antibody used was an Alexa Fluor®488 conjugated chicken anti-rabbit IgG (H+L) at a 1/500 dilution.

P : Permeabilized;
US : Unstained, Red Peak;
IGG RB : IgG Rabbit (Isotype Control), Blue Peak;
VWF : Von Willebrand Factor antibody, Green peak.
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human tonsil tissue, staining Von Willebrand Factor with ab9378.

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