Human Coagulation Factor VII Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2338

**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects human Coagulation Factor VII in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse Coagulation Factor VII and less than 1% cross-reactivity with recombinant human Coagulation Factor XA is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** Mouse myeloma cell line NS0-derived recombinant human Coagulation Factor VII Ala39-Pro444

**Accession #** NP_062562

**Lyophilized from a 0.2 µl filter solution in PBS.** See Certificate of Analysis for details.

**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.

<table>
<thead>
<tr>
<th><strong>Recommended Concentration</strong></th>
<th><strong>Sample</strong></th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>2 µg/mL</td>
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<tr>
<td>Immunocytochemistry</td>
<td>5-15 µg/mL</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>25 µg/mL</td>
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**Formulation**

Lyophilized from a 0.2 µl filter solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µl filter solution in PBS.

**Stability & Storage**

Reconstitution

Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

6 months, -20 to -70 °C under sterile conditions after reconstitution.

**REFERENCES**


**BACKGROUND**

Coagulation Factors VII and VIIa refer to the pro and active forms of the same protease, respectively (1). Factor VII is synthesized in the liver and circulates in the plasma where it binds to tissue factor (TF), an integral membrane protein found in a variety of cell types. Upon binding of TF, Factor VII is rapidly converted into VIIa. The resulting 1:1 complex of VIIa and TF initiates the coagulation pathway and has also important coagulation-independent functions such as angiogenesis (2).

The predominant splicing variant of Factor VII in normal liver corresponds to the 444 amino acid precursor (3, 4). After a signal peptide (residues 1-21), the mature chain can be further processed into the light chain (residues 39-190) and the heavy chain (residues 191-444). The purified rhFactor VII corresponds to the mature chain, which can be processed and activated by treatment with thrombin and binding with recombinant human Tissue Factor (R&D Systems, Catalog # 2339-PA) under the conditions described above.

**DATA**

Detection of Human Coagulation Factor VII by Western Blot. Western blot shows human plasma and lysate of human liver tissue. PVDF membrane was probed with 2 µg/mL of Goat Anti-Human Coagulation Factor VII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2338) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Coagulation Factor VII at approximately 50-55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**

Coagulation Factor VII in human PBMCs. Coagulation Factor VII was detected in immunoperoxidase-stained fixed human peripheral blood mononuclear cells (PBMCs). Using Goat Anti-Human Coagulation Factor VII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2338) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to mononuclear cells (PBMCs) using Goat Antigen Affinity purified Polyclonal Antibody (Catalog # AF2338) at 15 µg/mL (shown) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.