**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects human Coagulation Factor III/Tissue Factor in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with human Plasminogen, recombinant human (rh) Coagulation Factor VII, rhCoagulation Factor X, rhCoagulation Factor XI, rhCoagulation Factor XIV and recombinant mouse Coagulation Factor III/Tissue Factor is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** Mouse myeloma cell line NS0-derived recombinant human Coagulation Factor III/Tissue Factor (R&D Systems, Catalog # 2339-PA) Gly34-Glu251

Accession # P13726

**Formulation** Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. 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>Sample</th>
<th>Recommended Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 µg/mL</td>
</tr>
</tbody>
</table>

**Human Coagulation Factor III/Tissue Factor Sandwich Immunoassay**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA Capture</td>
<td>2-8 µg/mL</td>
</tr>
<tr>
<td>ELISA Detection</td>
<td>0.1-0.4 µg/mL</td>
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</tbody>
</table>

**Standard**

<table>
<thead>
<tr>
<th>Catalog Number</th>
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<tbody>
<tr>
<td>Recombinant Human Coagulation Factor III/Tissue Factor (Catalog # 2339-PA)</td>
</tr>
</tbody>
</table>

**PREPARATION AND 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 temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 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.

**BACKGROUND**

Coagulation Factor III/Tissue Factor (TF), also known as thromboplastin and CD142, is an integral membrane protein found in a variety of cell types. It functions as a protein cofactor/receptor of Coagulation Factor VII, which is synthesized in the liver and circulated in the plasma (1). Upon binding of TF, the inactive factor VII is rapidly converted into activated 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). Synthesized as a 295 amino acid precursor, TF consists of a signal peptide (residues 1-32) and the mature chain (residues 33-295). As a type I membrane protein, it contains a transmembrane region (residues 252-274) and a cytoplasmic tail (residues 275-295) (3-6).

**References:**


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