Product datasheet

Tissue Factor Activity Assay Kit (Human, Colorimetric) ab108906

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Tissue Factor Activity Assay Kit (Human, Colorimetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection method</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Urine, Serum, Plasma, Cell culture extracts, Tissue</td>
</tr>
<tr>
<td>Assay type</td>
<td>Enzyme activity (quantitative)</td>
</tr>
<tr>
<td>Assay time</td>
<td>1h 00m</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td>Product overview</td>
<td>Tissue Factor Activity Assay Kit (Human, Colorimetric) ab108906 is used to determine Human Tissue Factor activity in plasma, tissue and cell culture supernatants.</td>
</tr>
</tbody>
</table>

The tissue factor activity assay protocol measures the ability of lipoprotein TF/FVIIa to activate factor X (FX) to factor Xa. The amidolytic activity of the TF/FVIIa complex is quantitated by the amount of FXa produced using a highly specific FXa substrate releasing a yellow para-nitroaniline (pNA) chromophore. The change in absorbance of the pNA at 405 nm is directly proportional to the TF enzymatic activity.

Tissue factor activity assay protocol summary:
- add reaction mix to wells
- add standards and samples
- incubate for 30 min
- add FXa substrate
- analyze with a microplate reader every 5 min for 25 min

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Notes

Previously called Tissue Factor Human Chromogenic Activity Assay Kit.

The transmembrane protein Tissue factor (TF) is the physiologic trigger of coagulation in normal hemostasis. Tissue factor binds and allosterically activates factor VII (FVII). The TF-FVIIa complex cleaves factor IX and X, leading to thrombin generation. Tissue factor markedly enhances the ability of FVIIa to cleave both macromolecule and small peptidyl substrates.

Platform

Microplate reader
**Function**

Initiates blood coagulation by forming a complex with circulating factor VII or VIIa. The [TF:VIIa] complex activates factors IX or X by specific limited protolysis. TF plays a role in normal hemostasis by initiating the cell-surface assembly and propagation of the coagulation protease cascade.

**Sequence similarities**

Belongs to the tissue factor family.

**Cellular localization**

Membrane.

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**Images**

Colorimetric standard curve: mean of duplicates (+/- SD)

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**Storage instructions**

Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay Diluent</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>FXa Substrate</td>
<td>2 units</td>
</tr>
<tr>
<td>Human FVII</td>
<td>1 unit</td>
</tr>
<tr>
<td>Human FX</td>
<td>1 unit</td>
</tr>
<tr>
<td>rh Tissue Factor Standard (lipoprotein)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Sample Diluent</td>
<td>1 x 11ml</td>
</tr>
<tr>
<td>Sealing Tapes</td>
<td>3 units</td>
</tr>
<tr>
<td>Tissue Factor Microplate (12 strips of 8 wells)</td>
<td>1 unit</td>
</tr>
</tbody>
</table>
Functional studies - Tissue Factor Human
Chromogenic Activity Assay Kit

Standard curve showing concentration (pM) on X-axis and increase of O.D. per min on Y-axis (time frame: 20 min.)

Time course showing O.D.'s of one standard point and one sample (undiluted vs. diluted)

Tissue Factor measured in various biologicals showing average concentrations

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