Human PAI1 ELISA Kit (SERPINE1) ab108891

Overview

Product name: Human PAI1 ELISA Kit (SERPINE1)
Detection method: Colorimetric

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
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<td>4.1%</td>
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<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>9.6%</td>
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Sample type: Cell culture supernatant, Serum, Plasma, Tissue, Cerebral Spinal Fluid
Assay type: Sandwich (quantitative)
Sensitivity: = 0.02 ng/ml
Range: 0.078 ng/ml - 5 ng/ml
Recovery: 98%
Assay time: 4h 00m
Assay duration: Multiple steps standard assay

Reacts with: Human

Product overview:

Abcam’s PAI1 (SERPINE1) Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of PAI1 concentrations in Human plasma, serum, tissue extracts and cell culture supernatants.

A PAI1 specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a PAI1 specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of PAI1 captured in plate.
This assay recognizes both natural and recombinant Human PAI-1.

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

Platform
Microplate

Properties

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

Components | 1 x 96 tests
---|---
100X Streptavidin-Peroxidase Conjugate | 1 x 80µl
10X Diluent N Concentrate | 1 x 30ml
1X Standard Diluent | 1 x 2ml
20X Wash Buffer Concentrate | 2 x 30ml
50X Biotinylated Human PAI1 Antibody | 1 x 120µl
Chromogen Substrate | 1 x 8ml
PAI1 Microplate (12 x 8 well strips) | 1 unit
PAI1 Standard | 1 vial
Sealing Tapes | 3 units
Stop Solution | 1 x 12ml

Function
Serine protease inhibitor. This inhibitor acts as 'bait' for tissue plasminogen activator, urokinase, protein C and matriptase-3/TMPRSS7. Its rapid interaction with PLAT may function as a major control point in the regulation of fibrinolysis.

Tissue specificity
Found in plasma and platelets and in endothelial, hepatoma and fibrosarcoma cells.

Involvement in disease
Defects in SERPINE1 are the cause of plasminogen activator inhibitor-1 deficiency (PAI-1D) [MIM:613329]. It is a hematologic disorder characterized by increased bleeding after trauma, injury, or surgery. Affected females have menorrhagia. The bleeding defect is due to increased fibrinolysis of fibrin blood clots due to deficiency of plasminogen activator inhibitor-1, which inhibits tissue and urinary activators of plasminogen.

Note=High concentrations of SERPINE1 seem to contribute to the development of venous but not arterial occlusions.

Sequence similarities
Belongs to the serpin family.

Post-translational modifications
Inactivated by proteolytic attack of the urokinase-type (u-PA) and the tissue-type (TPA), cleaving the 369-Arg-Met-370 bond.

Cellular localization
Secreted.
Standard curve mean of duplicates (+/- SD) with background readings subtracted

PAI1 measured in various samples showing quantity (ng) per mL of tested sample

PAI1 measured in cell lysates showing quantity (ng) per 1 million cells tested
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