Calcineurin Phosphatase Activity Assay Kit (Colorimetric) ab139461

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Calcineurin Phosphatase Activity Assay Kit (Colorimetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection method</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Purified protein, Inhibitor compounds</td>
</tr>
<tr>
<td>Assay type</td>
<td>Enzyme activity</td>
</tr>
<tr>
<td>Product overview</td>
<td>Abcam Calcineurin Phosphatase Activity Assay Kit (Colorimetric) (ab139461) is a complete non-radioactive colorimetric assay kit designed for measuring calcineurin phosphatase activity through kinetic assay or for inhibitor screening. The activity is determined using the RII phosphopeptide substrate, the most efficient and selective peptide known for calcineurin, and detection of free phosphate released is based on the classic malachite green assay.</td>
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<tr>
<td>Platform</td>
<td>Microplate reader</td>
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</tbody>
</table>

Properties

| Storage instructions          | Store at -80°C. Please refer to protocols. |

<table>
<thead>
<tr>
<th>Components</th>
<th>1 x 96 tests</th>
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</thead>
<tbody>
<tr>
<td>96-well Clear Microplate (1/2 Volume)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Active Calcineurin Enzyme</td>
<td>1 x 50µl</td>
</tr>
<tr>
<td>Calcineurin Assay Buffer</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>Calcineurin Substrate</td>
<td>1 x 1.5mg</td>
</tr>
<tr>
<td>Calmodulin</td>
<td>1 x 100µl</td>
</tr>
<tr>
<td>Green Assay Reagent</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>Phosphate Standard</td>
<td>1 x 0.5ml</td>
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</tbody>
</table>

Function

Calcium-dependent, calmodulin-stimulated protein phosphatase. This subunit may have a role in the calmodulin activation of calcineurin. Dephosphorylates DNM1L, HSPB1 and SSH1.
Sequence similarities
Belongs to the PPP phosphatase family. PP-2B subfamily.

Cellular localization
Nucleus. Colocalizes with ACTN1 and MYOZ2 at the Z line in heart and skeletal muscle.

Images

Standard Curve

Time Course

In the presence (+) of Calmodulin, Calcineurin’s activity is high. In the absence (-) of Calmodulin, Calcineurin activity of relatively low.

Calmodulin activation of Calcineurin Phosphatase Activity
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