Product datasheet

PKA Kinase Activity Assay Kit ab139435

Overview

Product name: PKA Kinase Activity Assay Kit
Detection method: Colorimetric

<table>
<thead>
<tr>
<th>Precision</th>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-assay</td>
<td>Sample</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Inter-assay</td>
<td>Sample</td>
<td></td>
<td></td>
<td></td>
<td>&lt;=12%</td>
</tr>
</tbody>
</table>

Sample type: Adherent cells, Suspension cells, Tissue Extracts, Purified protein
Assay type: Enzyme activity
Assay time: 4h 30m

Product overview

PKA Kinase Activity Kit (ab139435) is a non-radioactive assay providing a safe, rapid and reliable method for the screening of inhibitors or activators of PKA and for quantitating the activity of PKA in purified or partially purified enzyme preparations. This kit is based on a solid phase enzyme-linked immuno-absorbent assay (ELISA) that utilizes a specific synthetic peptide as a substrate for PKA and a polyclonal antibody that recognizes the phosphorylated form of the substrate. The assay is designed for the analysis of PKA activity in the solution phase. This kit gives you the ability to an end-point or kinetic assay read-out in a convenient 96-well plate based assay and offers easy sample handling protocols.

The kit offers the following advantages:

1. Safe - non-radioactive measurement of kinase activity
2. Flexible - kinetic and end-point options available
3. Fast - results in < 4.5 hours
4. Efficient - only 30 µl diluted sample needed per well

Platform: Microplate reader

Properties

16 References 3 Images
Storage instructions

Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>1 x 96 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X Wash Buffer</td>
<td>1 x 30ml</td>
</tr>
<tr>
<td>Active PKA 20 ng/µl</td>
<td>1 x 30µl</td>
</tr>
<tr>
<td>Antibody Dilution Buffer</td>
<td>1 x 10ml</td>
</tr>
<tr>
<td>Anti-Rabbit IgG: HRP Conjugate</td>
<td>1 x 20µl</td>
</tr>
<tr>
<td>ATP</td>
<td>1 x 2mg</td>
</tr>
<tr>
<td>Kinase Assay Dilution Buffer</td>
<td>1 x 10ml</td>
</tr>
<tr>
<td>PKA Phosphospecific Substrate Antibody</td>
<td>1 x 5ml</td>
</tr>
<tr>
<td>PKA Substrate Microtiter Plate</td>
<td>1 unit</td>
</tr>
<tr>
<td>Stop Solution 2</td>
<td>1 x 10ml</td>
</tr>
<tr>
<td>TMB Substrate</td>
<td>1 x 10ml</td>
</tr>
</tbody>
</table>

Relevance

In cell biology, Protein kinase A (PKA) is a family of enzymes whose activity is dependent on cellular levels of cyclic AMP (cAMP). PKA is also known as cAMP-dependent protein kinase. Protein kinase A has several functions in the cell, including regulation of glycogen, sugar, and lipid metabolism.

Images

1e7 3T3-L1 cells were treated for 15 minutes with 1 µM dexamethasone (ab120743) and 1 µg/mL insulin (ab123768) with the addition of 50 µM forskolin (ab120058), 0.5 mM IBMX (ab120840) or 0.1 mM 8-CPT-cAMP (ab120424). Cell extracts were prepared according to the protocol. Lysates were diluted 50-fold, and tested in duplicates (+/-SD).

Functional Assay: ab139435 PKA Kinase Activity Assay Kit
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Titration of positive control (active PKA), background signal subtracted (duplicates; +/- SD).

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**Functional Assay: ab139435 PKA Kinase Activity Assay Kit**

Titration of cAMP Protein Kinase (ab56268), background signal subtracted (duplicates; +/- SD).

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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