PKC Kinase Activity Assay Kit ab139437

Overview

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

Precision

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>intra-assay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>inter-assay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 10%</td>
</tr>
</tbody>
</table>

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

Product overview

PKC Kinase Activity Assay Kit (ab139437) is a non-radioactive assay providing a safe, rapid and reliable method for the screening of inhibitors or activators of PKC and for quantitating the activity of PKC 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 PKC and a polyclonal antibody that recognizes the phosphorylated form of the substrate. The assay is designed for the analysis of PKC activity in the solution phase. For the measurement of PKC in partially purified, purified, or crude enzyme preparations from any species.

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
Protein Kinase C (PKC) isoforms are serine/threonine kinases involved in signal transduction pathways that govern a wide range of physiological processes including differentiation, proliferation, gene expression, brain function, membrane transport and the organization of cytoskeletal and extracellular matrix proteins. Increasing evidence from studies using in vitro and in vivo systems points to PKC as a key regulator of critical cell cycle transitions, including cell cycle entry and exit and the G1 and G2 checkpoints. PKC-mediated control of these transitions can be negative or positive, depending on the timing of PKC activation during the cell cycle and on the specific PKC isoforms involved. There have been at least 12 different PKC isoforms identified in humans to date, including alpha, beta I, beta II, gamma, delta, epsilon, zeta, eta, theta, iota, lambda, and mu.
1.5 x 10^7 THP-1 cells were incubated with 100 nM GF109203X (GF; ab144264) or Ro31-8220 mesylate (Ro; ab120374) for 30 minutes prior to activation with 10 μg x mL^-1 PMA (Sigma) for 4 hours. Control cells were left without inhibitors or PMA. Cells were lysed in 1 mL of lysis buffer, and 30 μL were tested for PKC activity (duplicates; +/- SD).
Functional assay: PKC Kinase Activity Assay Kit (ab139437)

Signal from active PKC with background signal subtracted (duplicates; +/- SD).

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.
Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors