Creatine Kinase Activity Assay Kit (Colorimetric) ab155901

Overview

Product name: Creatine Kinase Activity Assay Kit (Colorimetric)
Detection method: Colorimetric
Sample type: Serum, Plasma, Tissue, Adherent cells, Suspension cells, Tissue Homogenate
Assay type: Enzyme activity
Sensitivity: < 1 mU/well
Range: 2 nmol/well - 10 nmol/well
Assay time: 1h 0m
Species reactivity: Reacts with: Mammals, Other species

Product overview:
Creatine Kinase Activity Assay Kit (Colorimetric) ab155901 uses a high-throughput adaptable, simple and sensitive assay for creatine kinase (CK) activity.

In the creatine kinase assay protocol, creatine kinase (CK) converts creatine into phosphocreatine and ADP. The phosphocreatine and ADP then react with the CK enzyme mix to form an intermediate, which reduces a colorless probe to a colored product with strong absorbance at λ= 450 nm.

This assay kit can detect CK activity to less than 1 mU.

Creatine kinase assay protocol summary:
- add samples and standards to wells
- add reaction mix
- analyze every 1-2 min for 10-40 min with microplate reader in kinetic mode at 37ºC

Notes:
Creatine Kinase (CK) also known as creatine phosphokinase (CPK) and ATP: creatine N-phosphotransferase is a common cellular enzyme (EC 2.7.3.2). It catalyzes the reversible conversion of creatine and ATP into ADP and phosphocreatine.

Platform:
Microplate reader

Properties

Storage instructions:
Store at -20°C. Please refer to protocols.
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Sengle, Gerhard et al., PLoS genetics vol. 11,6 e1005340., Table 1, doi:10.1371/journal.pgen.1005340

Creatine kinase activities in blood samples from wildtype and Fbn2 null mice.

Mean +/- standard deviation for a given genotype and age is shown, except where only one animal was tested. N = number of animals tested. Units are nmol NADH/min/ml.

Creatine Kinase Activity measured in various samples.

Initial protein concentration for tissue lysates varied from 1 mg/mL to 3 mg/mL. 40 μl of filtered tissue lysates were used. 30 μl of filtered biological fluids were used.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP</td>
<td>Orange</td>
<td>1 vial</td>
</tr>
<tr>
<td>CK Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>CK Developer</td>
<td>Red</td>
<td>1 vial</td>
</tr>
<tr>
<td>CK Enzyme Mix</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>CK Positive Control</td>
<td>Purple</td>
<td>1 vial</td>
</tr>
<tr>
<td>CK Substrate</td>
<td>Blue</td>
<td>1 x 1ml</td>
</tr>
<tr>
<td>NADH Standard</td>
<td>Yellow</td>
<td>1 vial</td>
</tr>
</tbody>
</table>

**Images**

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![Creatine Kinase Activity in diverse samples](image1.png)

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Functional studies - Creatine Kinase Activity Assay Kit

Typical NADH standard calibration curve using colorimetric reading.

Creatine kinase activity tested in 5 µl human serum and 192 ng rat heart lysate. Assay performed following kit protocol.

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

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