Creatine Kinase Activity Assay Kit (Colorimetric) ab155901

Overview

Product name: Creatine Kinase Activity Assay Kit (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: Mouse, Rat, Human, Mammal

Product overview
Creatine Kinase Activity Assay kit (Colorimetric) (ab155901) is a kit where creatine kinase (CK) converts creatine into phosphocreatine and ADP. The generated phosphocreatine and ADP react with CK Enzyme Mix to form an intermediate, which reduces a colorless probe to a colored product with strong absorbance at \(\lambda = 450\) nm. The CK Activity Assay is high-throughput adaptable, simple and sensitive. This assay kit can detect CK activity less than 1 mU.

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. CK is widely expressed in various tissues and cell types, with highest activity in striated muscles, heart tissue and brain. CK consists of two subunits: M (muscle) and B (brain), and has three isoenzymes: CK-MM (skeleton muscle), CK-MB (cardiac muscle), and CK-BB (brain). Increased CK level is associated with many diseases such as myocardial infarction, muscular dystrophy, pulmonary infarction and brain tumors. Accurate measurement of CK is crucial for early diagnosis, prediction and therapeutic strategy.

Tested applications
Suitable for: Functional Studies

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

Components

<table>
<thead>
<tr>
<th>ATP</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Orange</td>
<td>1 vial</td>
</tr>
</tbody>
</table>
Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<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>
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Applications

Our Abpromise guarantee covers the use of ab155901 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Studies</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Images

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.
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 AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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