## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Creatine Kinase Activity Assay Kit (Colorimetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection method</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Serum, Plasma, Tissue, Adherent cells, Suspension cells, Tissue Homogenate</td>
</tr>
<tr>
<td>Assay type</td>
<td>Enzyme activity</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>&lt; 1 mU/well</td>
</tr>
<tr>
<td>Range</td>
<td>2 nmol/well - 10 nmol/well</td>
</tr>
<tr>
<td>Assay time</td>
<td>1h 0m</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mammals, Other species</td>
</tr>
<tr>
<td>Product overview</td>
<td>Creatine Kinase Activity Assay Kit (Colorimetric) ab155901 uses a high-throughput adaptable, simple and sensitive assay for creatine kinase (CK) activity.</td>
</tr>
</tbody>
</table>

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 $\lambda= 450$ 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.

Abcam has not and does not intend to apply for the REACH Authorisation of customers’ uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

### Platform

Microplate reader
**Properties**

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

<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**

Creative 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.

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.

**Functional studies - Creatine Kinase Activity Assay Kit (ab155901)**

**Functional Studies - Creatine Kinase Activity Assay Kit (Colorimetric) (ab155901)**

Sengle, Gerhard et al., PLoS genetics vol. 11.6 e1005340., Table 1, doi:10.1371/journal.pgen.1005340
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.

Figure 1

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

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