

## Product datasheet

# Creatine Kinase Activity Assay Kit (Colorimetric) ab155901

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### Overview

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<b>Product name</b>	Creatine Kinase Activity Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Serum, Plasma, Tissue, Adherent cells, Suspension cells, Tissue Homogenate
<b>Assay type</b>	Enzyme activity
<b>Sensitivity</b>	< 1 mU/well
<b>Range</b>	2 nmol/well - 10 nmol/well
<b>Assay time</b>	1h 0m
<b>Species reactivity</b>	<b>Reacts with:</b> Mammals, Other species
<b>Product overview</b>	<p>Creatine Kinase Activity Assay Kit (Colorimetric) ab155901 uses a high-throughput adaptable, simple and sensitive assay for creatine kinase (CK) activity.</p> <p>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 <math>\lambda = 450</math> nm.</p> <p>This assay kit can detect CK activity to less than 1 mU.</p> <p>Creatine kinase assay protocol summary:</p> <ul style="list-style-type: none"><li>- add samples and standards to wells</li><li>- add reaction mix</li><li>- analyze every 1-2 min for 10-40 min with microplate reader in kinetic mode at 37°C</li></ul>
<b>Notes</b>	<p>This product is manufactured by BioVision, an Abcam company and was previously called K777 Creatine Kinase (CK) Activity Colorimetric Assay Kit. K777-100 is the same size as the 100 test size of ab155901.</p> <p>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.</p>
<b>Platform</b>	Microplate reader

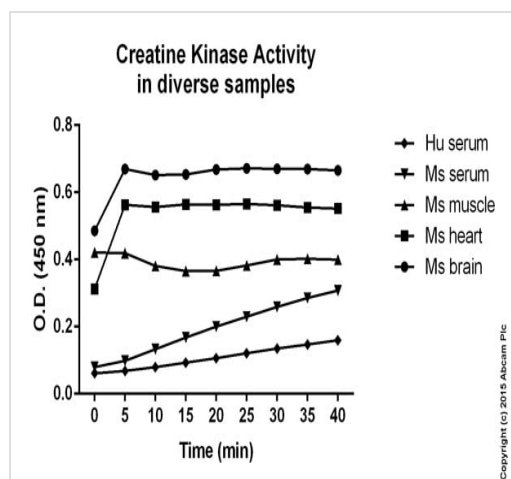
## Properties

### Storage instructions

Store at -20°C. Please refer to protocols.

Components	Identifier	100 tests
ATP	Orange	1 vial
CK Assay Buffer	WM	1 x 25ml
CK Developer	Red	1 vial
CK Enzyme Mix	Green	1 vial
CK Positive Control	Purple	1 vial
CK Substrate	Blue	1 x 1ml
NADH Standard	Yellow	1 vial

## Images



Functional studies - Creatine Kinase Activity Assay Kit (ab155901)

Creatine Kinase Activity measured in various samples.

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

Age	WT	Null	Fold increase
2 months	558 +/- 78 (n = 2)	1433 (n = 1)	2.6
3 months	275 (n = 1)	618 +/- 91 (n = 2)	2.2
4 months	237 +/- 118 (n = 2)	1268 (n = 1)	5.4
5 months	62 +/- 11.5 (n = 2)	226 +/- 105 (n = 3)	3.6
7 months	360 +/- 185 (n = 2)	628 +/- 385 (n = 2)	1.7
1 year	206 (n = 1)	307 (n = 1)	1.5

doi:10.1371/journal.pgen.1005340.t001

Sengle, Gerhard et al.  
 PLoS genetics vol. 11,6 e1005340, (2015)

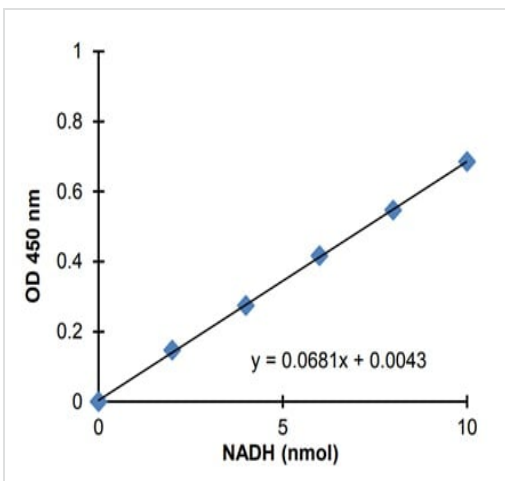
#### Functional Studies - Creatine Kinase Activity Assay

Kit (Colorimetric) (ab155901)

Sengle, Gerhard et al., PLoS genetics ?vol. 11,6  
 e1005340., Table 1, doi:10.1371/journal.pgen.1005340

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

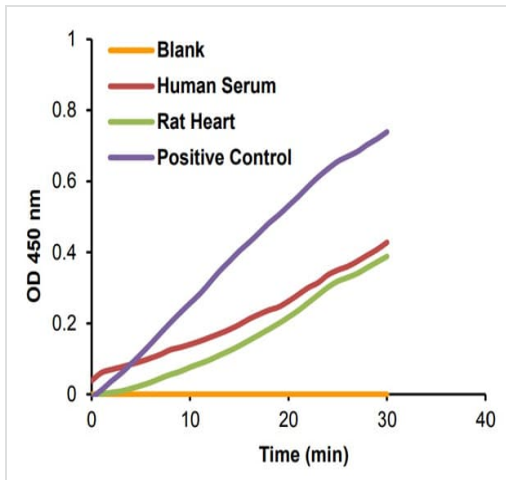
Mean +/- standard deviation for a given genotype and age is shown, except where only one animal was tested. N = number of animals tested. Units are nmol NADH/min/ml.



Typical NADH standard calibration curve using colorimetric reading.

#### Functional studies - Creatine Kinase Activity Assay

Kit



Creatine kinase activity tested in 5  $\mu$ l 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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