MAY 17, 2019

Yale - Creatine Kinase Activity

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OPEN ACCESS

DOI:
dx.doi.org/10.17504/protocols.io.y3sfyne

External link:
<https://mmpc.org/shared/document.aspx?id=219&docType=Protocol>

Protocol Citation: John Stack, Gary Cline 2019. Yale - Creatine Kinase Activity.
protocols.io
<https://dx.doi.org/10.17504/protocols.io.y3sfyne>

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Protocol status: Working
We use this protocol and it's working

Created: Mar 12, 2019

Last Modified: May 17, 2019

PROTOCOL integer ID:
21330

ABSTRACT

Summary:

Procedure used to determine the creatine kinase activity in blood , serum, and plasma. Creatine kinase activity is measured by the enzymatically coupled reactions of creatine kinase, hexokinase, and glucose-6-P dehydrogenase. The rate of NADPH formation is monitored by the change in absorbance at 340 nm.

MATERIALS

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✕ CK NADP Imidazole Reagent Cliniq Catalog #R85191

✕ CK NADP Imidazole Buffer Cliniq Catalog #R85191

✕ Assayed Control Serum 1 Prolabs(cliniq) Catalog #R83082

✕ Assayed Control Serum 2 Prolabs(cliniq) Catalog #R83083

Reagent Preparation:

CK NADP Imidazole Reagent: Add the appropriate volume (26mL) of CK NADP Imidazole Buffer to the powdered reagent. Gently invert reagent bottle to stir contents and allow 15 minutes for contents to mix.

CK NADP Imidazole Buffer: As supplied by vendor.

Assayed Control Serum 1: Add the appropriate amount of water (6.5mL) to the chemical control bottle.
Invert to mix, allowing 15 minutes for the reagent to settle.

Assayed Control Serum 2: Add the appropriate amount of water (6.5mL) to the chemical control bottle.
Invert to mix, allowing 15 minutes for the reagent to settle.

BEFORE START INSTRUCTIONS

Analysis by automated system Cobas Mira Plus

- 1 Calibrate Cobas for the measurement of creatine kinase activity analysis by running two control serum.
- 2 Sample handling as performed by the Cobas Mira Plus.
 - a) Pipette 4.5 µL of sample into a cuvette slot.
 - b) Add 175 µL of CK NADP Imidazole Reagent.
 - c) Mixture is incubated at 37°C and spun for 10 minutes.
 - d) Absorbance is measured at 340nm.