May 16, 2019

Working

Yale - Alkaline Phosphatase

Gary Cline[1], John Stack[1]

[1]Yale University

dx.doi.org/10.17504/protocols.io.yz7fx9n

Mouse Metabolic Phenotyping Centers
Tech. support email: **info@mmpc.org**

Lili Liang

ABSTRACT

Summary:

Procedure to measure the amount of Alkaline Phosphatase activity. Alkaline Phosphatase (ALP) activity is measured from the hydrolysis of 4-nitrophenylphospate to 4-nitrophenyoxide ion (monitored at 405 nm) and phosphate.

EXTERNAL LINK

https://mmpc.org/shared/document.aspx?id=208&docType=Protocol

MATERIALS

NAME	CATALOG #	VENDOR
Alkaline Phosphatase Reagent	R85120	Prolabs(cliniqa)
Assayed Control Serum 1	R83082	Prolabs(cliniqa)
Assayed Control Serum 2	R83083	Prolabs(cliniqa)

MATERIALS TEXT

Reagent Preparation:

Alkaline Phosphatase Reagent: Add the appropriate amount of water (6.5mL) to the reagent bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

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 STARTING

Analysis by automated system Cobas Mira Plus.

1 Calibrate Cobas for Alkaline Phosphatase Activity analysis by running two assayed control serum.

2 Sample handling as performed by the Cobas Mira Plus.
a) Pipette 3 µL of sample into a cuvette slot.
b) Add 150 µL of Alkaline Phosphatase Reagent.
c) Mixture is incubated at 37˚C and spun for 10 minutes.
d) Absorbance is measured at 405 nm.

This is an open access protocol distributed under the terms of the **Creative Commons Attribution License** (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

This is an open access protocol distributed under the terms of the **Creative Commons Attribution License** (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited