May 17, 2019

Working

Yale - Blood Urea Nitrogen

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dx.doi.org/10.17504/protocols.io.y3qfymw

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ABSTRACT

Summary:

Procedure used to measure the concentration of Blood Urea Nitrogen(BUN) in blood, plasma, and serum. Urea is determined by the enzymatically coupled reactions of urease (to form ammonia) and glutamate dehydrogenase (conversion of ammonia and glutamate to glutamine with oxidation of NADH to NAD). The rate of NAD formation is monitored by the change in absorbance at 340 nm.

EXTERNAL LINK

https://mmpc.org/shared/document.aspx?id=203&docType=Protocol

MATERIALS

NAME	CATALOG #	VENDOR
BUN liquid Reagent	R84533	Prolabs(cliniqa)
Multi Analyte Calibrator	R60010	Prolabs(cliniqa)
Assayed Control Serum 1	R83082	Prolabs(cliniqa)
Assayed Control Serum 2	R83083	Prolabs(cliniqa)

MATERIALS TEXT

Reagent Preparation:

BUN liquid Reagent: As supplied by vendor

Multi Analyte Calibrator: 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 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 BUN analysis by running a multi analyte standard and two assayed control serums.

2 Sample handling as performed by the Cobas Mira Plus.
a) Cobas pipettes 2 µL of sample into a cuvette slot.
b) Absorbance is measured at 340 nm.
c) Add 200 µL of BUN liquid reagent.
d) Mixture is incubated at 37°C for 10 minutes.
e) Absorbance is measured at 340 nm. Change in absorbance is calculated.