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Yale - Blood Glucose

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

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ABSTRACT

Summary:

Procedure used to measure glucose concentrations. Glucose is measured by the enzymatically coupled reactions of hexokinase and glucose-6-P dehydrogenase. The rate of NADH formation is monitored by the change in absorbance at 340 nm.

MATERIALS

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⊗ Glucose Reagent 1 **Prolabs(cliniqa) Catalog #R84682**

⊗ Glucose Reagent 2 **Prolabs(cliniqa) Catalog #R84682**

⊗ Multi Analyte Calibrator **Prolabs(cliniqa) Catalog #R60010**

⊗ Assayed Control Serum 1 **Prolabs(cliniqa) Catalog #R83082**

⊗ Assayed Control Serum 2 **Prolabs(cliniqa) Catalog #R83083**

Reagent Preparation:

Glucose Reagent 1: As supplied by Vendor

Glucose Reagent 2: 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.

Note: Author switched vendors and are now using a [Sekisui 235-60 reagent](#) for glucose assay. (There is now only 1 reagent instead of 2).

BEFORE START INSTRUCTIONS

Analysis by automated system Cobas Mira Plus

- 1 Calibrate Cobas for Glucose analysis by running a multi analyte standard and two control serum.
- 2 Sample Handling as performed by the Cobas Mira Plus.
 - a) Pipette 3 μ L of sample into cuvette.
 - b) Absorbance is measured at 340 nm.
 - c) Add 100 μ L of Glucose liquid reagent.

- d) Mixture is incubated at 37°C for 10 minutes.
- e) Absorbance is measured at 340 nm. Change in absorbance is calculated.