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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

MATERIALS

- 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

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 µL of sample into cuvette.
b) Absorbance is measured at 340 nm.
c) Add 100 µL of Glucose liquid reagent.
d) Mixture is incubated at 37ºC for 10 minutes.
e) Absorbance is measured at 340 nm. Change in absorbance is calculated.