



Aspartate Amino Transferase (AST)

Version: 1

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Summary: Procedure used to measure the activity of Aspartate Amino Transferase (AST). AST activity is measured by the enzymatically coupled reactions of AST (to form oxaloacetate from aspartate and α -ketoglutarate) and malate dehydrogenase (conversion of oxaloacetate to malate with oxidation of NADH to NAD). The rate of NAD formation is monitored by the change in absorbance at 340 nm.

Reagents and Materials:

Reagent/Material	Vendor	Stock Number
Aspartate Amino Transferase Reagent	Prolabs	R85121
Assayed Control Serum 1	Prolabs	R83082
Assayed Control Serum 2	Prolabs	R83083

Protocol: Analysis by automated system Cobas Mira Plus.

- 1) Calibrate Cobas for Aspartate Amine Transferase Activity analysis by running two assayed control serum.
- 2) Sample handling as performed by the Cobas Mira Plus.
 - a) Pipette 16 μ L of sample into a cuvette slot.
 - b) Add 145 μ L of Aspartate Amino Transferase Reagent.
 - c) Mixture is incubated at 37°C and spun for 10 minutes.
 - d) Absorbance is measured at 340 nm.

Reagent Preparation:

Aspartate Amino Transferase 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.