
Lab Dept: Chemistry

Test Name: METHYLMALONIC ACID (MMA), SERUM

General Information

Lab Order Codes: MMA

Synonyms: MMA

CPT Codes: 83921 – Organic acid, single, quantitative

Test Includes: Quantitative MMA level reported in nmol/L.

Logistics

Test Indications: Evaluating children with signs and symptoms of methylmalonic Acidemia. Screening for the differential diagnosis of signs and symptoms associated with a variety of causes of cobalamin deficiency. Serum MMA may be a more reliable marker of cobalamin deficiency than direct cobalamin determination.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: MMAS)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 - 5 days, test performed Monday - Friday

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: SST (Gold, marble or red) tube

Draw Volume: 4.5 mL (Minimum: 1.5 mL) blood

Processed Volume: 1.5 mL (Minimum: 0.5 mL) serum

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.

Patient Preparation: None

Sample Rejection: Specimens other than serum; unlabeled or mislabeled specimens

Interpretive

Reference Range: < or = 0.40 nmol/L

In pediatric patients, markedly elevated MMA values are consistent with a diagnosis of methylmalonic acidemia.

In adults, moderately time elevated values are indicative of cobalamin deficiency.

Critical Values: N/A

Limitations: Diet, nutritional status, and age should be considered in the evaluation of serum MMA level.

Methodology: Liquid chromatography-tandem mass spectrometry stable isotope dilution analysis (LC-MS/MS).

References: [Mayo Medical Laboratories](#) November 2017

Updates: 4/18/2011: Storage temp changed from frozen to refrigerated.
11/6/2017: Updated collection tube