
Lab Dept: Urine/Stool

Test Name: METHYLMALONIC ACID (MMA), URINE

General Information

Lab Order Codes: MMAU

Synonyms: MMA, Urine

CPT Codes: 83921 – Organic acid, single, quantitative

Test Includes: Quantitative MMA level reported in umol/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: MMAU)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

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

Special Instructions: Overnight fast recommended prior to specimen collection. [See Collection.](#)

Specimen

Specimen Type: Random urine

Container: Urine container

Draw Volume: 4 mL (Minimum: 1.2 mL) second-voided urine

Processed Volume: Same as Draw Volume

Collection: Second-voided urine specimen after an overnight fast.

Special Processing:	Lab Staff: Send urine specimen aliquot frozen in a plastic, 10 mL urine tube. Forward promptly.
Patient Preparation:	Second-voided urine specimen after an overnight fast.
Sample Rejection:	Warm specimen; specimens other than urine

Interpretive

Reference Range:	<3.60 mmol/mol creatinine In pediatric patients, markedly elevated MMA values are consistent with a diagnosis of methylmalonic acidemia. In adults, moderately elevated MMA values indicate a likely 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 August 2015