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**Lab Dept:** Chemistry

**Test Name:** AMINO ACIDS, PLASMA

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***General Information***

**Lab Order Codes:** AAQP

**Synonyms:** Amino Acid Fractionation

**CPT Codes:** 82139 – Amino acids; 6 or more, quantitative, each specimen

**Test Includes:** 1-methylhistidine, 3-methylhistidine, alanine, B-alanine, A-amino-n-butyric acid, A-aminoadipic Acid, allo-isoleucine, anserine, arginine, argininosuccinic acid, asparagine, aspartic acid, beta, aminoisobutyric Acid, carnosine, citrulline, cystathionine, cystine, ethanolamine, Gamma-Amino-n-butyric acid, glutamic acid, glutamine, glycine, histidine, homocitrulline, hydroxylysine, hydroxyproline, isoleucine, leucine, lysine, methionine, ornithine, phenylalanine, phosphoserine, phosphoethanolamine, proline, sarcosine, serine, taurine, threonine, tryptophan, tyrosine, valine levels reported in nmol/mL.

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***Logistics***

**Test Indications:** Evaluating patients with possible inborn errors of metabolism.

May aid in evaluation of endocrine disorders, liver diseases, neurological disorders, nutritional disturbances, renal failure, and burns.

Not all patients with homocystinuria will be detected by this assay. If there is a concern for homocystinuria, consider ordering Homocysteine, Total, Urine.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: AAQP)

**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:** Provide family history, clinical condition (asymptomatic or acute episode), diet and drug therapy to the lab to accompany the specimen.

See [Patient Preparation](#)

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***Specimen***

<b>Specimen Type:</b>	Blood
<b>Container:</b>	Green top (Lithium Heparin) tube Alternate tube: Lavender (EDTA), Green (Sodium Heparin)
<b>Draw Volume:</b>	1.5 mL (Minimum: 1 mL) blood
<b>Processed Volume:</b>	0.5 mL (Minimum: 0.3 mL) plasma
<b>Collection:</b>	Routine blood collection
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen with, separate and aliquot into a screw-capped round bottom plastic vial. Include family history, clinical condition, diet and drug therapy information along with the specimen. Ship and store at frozen temperatures. Forward promptly.
<b>Patient Preparation:</b>	Overnight fast is preferred (4 hours minimum). Infants should be drawn before next feeding (2-3 hours without TPN, if possible).
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens

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### ***Interpretive***

<b>Reference Range:</b>	An interpretation is provided with each report.
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	Reference values are for fasting patients.
<b>Methodology:</b>	Quantitative analysis by LC-MSMS
<b>References:</b>	<a href="#">Mayo Medical Laboratories</a> January 2018
<b>Updates:</b>	3/11/2004: Test moved from Fairview Diagnostic Laboratories to Mayo Medical Laboratories. 5/16/2008: Updated link to reference ranges. 1/11/2011: Addition of arginosuccinic acid and allo-leucine. Units change from umol/L to nmol/mL. 2/8/2012: Tube type changed to Na Hep. 10/3/2012: 17 additional amino acid levels have been added. 4/1/2016: Added alternate tubes. 2/15/2016: Tube update.