

Reporting Title: Amino Acids, QN, P

Performing Location: Rochester

Additional Testing Requirements:

Not all patients with homocystinuria/homocystinemia will be detected by this assay. If there is a concern for homocystinemia, order HCYSP / Homocysteine, Total, Plasma in conjunction with this amino acids profile.

Shipping Instructions:

Send plasma frozen.

Necessary Information:

1. Patient's age is required.

2. Include family history, clinical condition (asymptomatic or acute episode), diet, and drug therapy information.

Specimen Requirements:

Patient Preparation: Fasting (overnight preferred, 4 hours minimum). Infants should be drawn just before next feeding (2-3 hours without total parenteral nutrition, if possible).

Collection Container/Tube:

Preferred: Green top (sodium heparin)

Acceptable: Lavender top (EDTA), plasma gel tube, green top (lithium heparin)

Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL

Collection Instructions:

1. Collect specimen and place on wet ice. Note: Thrombin-activated tubes **should not be used** for collection.

2. Centrifuge immediately or within 4 hours of collection if the specimen is kept at refrigerated temperature.

3. Being careful to ensure that no buffy coat is transferred, aliquot plasma into a plastic vial and freeze.

Forms:

[If not ordering electronically, complete, print, and send a Biochemical Genetics Test Request](#) (T798) with the specimen.

Specimen Type	Temperature	Time	Special Container
Plasma	Frozen	14 days	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
3512	Taurine	Numeric	nmol/mL	20657-3
3517	Asparagine	Numeric	nmol/mL	20638-3
3516	Serine	Numeric	nmol/mL	20656-5
3522	Glycine	Numeric	nmol/mL	20644-1
3518	Glutamine	Numeric	nmol/mL	20643-3
3535	Histidine	Numeric	nmol/mL	20645-8
3515	Threonine	Numeric	nmol/mL	20658-1
3521	Citrulline	Numeric	nmol/mL	20640-9
3532	Beta-Alanine	Numeric	nmol/mL	26604-9

3523	Alanine	Numeric	nmol/mL	20636-7
3520	Glutamic Acid	Numeric	nmol/mL	20642-5
32341	Argininosuccinic Acid	Numeric	nmol/mL	32227-1
3536	Arginine	Numeric	nmol/mL	20637-5
3524	Alpha-amino-n-butyric Acid	Numeric	nmol/mL	20634-2
3519	Proline	Numeric	nmol/mL	20655-7
3533	Ornithine	Numeric	nmol/mL	20652-4
3526	Cystine	Numeric	nmol/mL	22672-0
3534	Lysine	Numeric	nmol/mL	20650-8
3527	Methionine	Numeric	nmol/mL	20651-6
3525	Valine	Numeric	nmol/mL	20661-5
3530	Tyrosine	Numeric	nmol/mL	20660-7
3528	Isoleucine	Numeric	nmol/mL	20648-2
3529	Leucine	Numeric	nmol/mL	20649-0
3531	Phenylalanine	Numeric	nmol/mL	14875-9
3570	Interpretation (AAQP)	Alphanumeric		49247-0
32347	Allo-isoleucine	Numeric	nmol/mL	22670-4
34449	Phosphoserine	Numeric	nmol/mL	20654-0
34450	Alpha-aminoadipic Acid	Numeric	nmol/mL	26600-7
34451	Cystathionine	Numeric	nmol/mL	26607-2
34452	Beta-aminoisobutyric Acid	Numeric	nmol/mL	26605-6
34453	1-Methylhistidine	Numeric	nmol/mL	20633-4
34454	3-Methylhistidine	Numeric	nmol/mL	20635-9
34455	Carnosine	Numeric	nmol/mL	26606-4
34456	Homocitrulline	Numeric	nmol/mL	55876-7
34457	Phosphoethanolamine	Numeric	nmol/mL	26612-2
34458	Hydroxyproline	Numeric	nmol/mL	20647-4
34459	Aspartic Acid	Numeric	nmol/mL	20639-1
34460	Ethanolamine	Numeric	nmol/mL	26608-0
34461	Sarcosine	Numeric	nmol/mL	26613-0
34462	Anserine	Numeric	nmol/mL	26599-1
34463	Gamma-amino-n-butyric Acid	Numeric	nmol/mL	26609-8
34464	Hydroxylysine	Numeric	nmol/mL	26610-6
34465	Tryptophan	Numeric	nmol/mL	20659-9

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82139

Reference Values:

Amino acids	Age groups		
	<24 months	2-17 years	> or =18 years
Phosphoserine (PSer)	<109	<95	<18
Phosphoethanolamine (PEtN)	<6	<5	<12
Taurine (Tau)	37-177	38-153	42-156
Asparagine (Asn)	25-91	29-87	37-92
Serine (Ser)	69-271	71-208	63-187
Hydroxyproline (Hyp)	8-61	7-35	4-29
Glycine (Gly)	111-426	149-417	126-490
Glutamine (Gln)	316-1,020	329-976	371-957
Aspartic Acid (Asp)	2-20	<11	<7
Ethanolamine (EtN)	<70	<64	<67
Histidine (His)	10-116	12-132	39-123
Threonine (Thr)	47-237	58-195	85-231
Citrulline (Cit)	9-38	11-45	17-46
Sarcosine (Sar)	<5	<5	<5
b-Alanine (bAla)	<28	<27	<29
Alanine (Ala)	139-474	144-557	200-579
Glutamic Acid (Glu)	31-202	22-131	13-113
1-Methylhistidine (1MHis)	<11	<20	<28
3-Methylhistidine (3MHis)	<1	<1	2-9
Argininosuccinic Acid (Asa)	<2	<2	<2
Carnosine (Car)	<13	<1	<1
Anserine (Ans)	<1	<1	<1
Homocitrulline (Hcit)	<5	<2	<2
Arginine (Arg)	29-134	31-132	32-120
a-Aminoadipic Acid (Aad)	<4	<3	<3
g-Amino-n-butyric Acid (GABA)	<4	<3	<2
b-Aminoisobutyric Acid (bAib)	<9	<5	<5
a-Amino-n-butyric Acid (Abu)	7-28	7-31	9-37
Hydroxylysine (Hyl)	<4	<3	<2
Proline (Pro)	85-303	80-357	97-368
Ornithine (Orn)	20-130	22-97	38-130
Cystathionine (Cth)	<2	<2	<5
Cystine (Cys)	2-32	2-36	3-95
Lysine (Lys)	49-204	59-240	103-255
Methionine (Met)	11-35	11-37	4-44
Valine (Val)	83-300	106-320	136-309
Tyrosine (Tyr)	26-115	31-106	31-90
Isoleucine (Ile)	31-105	30-111	36-107
Leucine (Leu)	48-175	51-196	68-183
Phenylalanine (Phe)	28-80	30-95	35-80

Tryptophan (Trp)	17-75	23-80	29-77
Alloisoleucine (Allole)	<2	<3	<5

All results reported in nmol/mL