

URINE AMINO ACIDS



The Great Plains Laboratory, Inc.

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LAB#:
PATIENT:
SEX:
AGE:
CLIENT#:

SPECIMEN VALIDITY

| SPECIMEN MARKERS | RESULT | REFERENCE RANGE | PERCENTILE | | | | | |
|-------------------------|--------|-----------------|-------------------|------------------|------------------|------------------|--------------------|--|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th | |
| Creatinine | 160 | 45- 225 mg/dL | | | | | | |
| Glutamine/Glutamate | 28 | 5- 160 | | | | | | |
| Ammonia Level | 32700 | 9000- 39000 μM | | | | | | |
| SPECIMEN VALIDITY INDEX | | | | | | | | |

ESSENTIAL / CONDITIONALLY INDISPENSABLE AMINO ACIDS

| ESSENTIAL AMINO ACIDS | RESULT μM/g creatinine | REFERENCE RANGE | PERCENTILE | | | | | |
|-----------------------|------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|--|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th | |
| Methionine | 6 | 7- 35 | | | | | | |
| Lysine | 84 | 35- 500 | | | | | | |
| Threonine | 190 | 60- 230 | | | | | | |
| Leucine | 43 | 18- 70 | | | | | | |
| Isoleucine | 9.9 | 8- 35 | | | | | | |
| Valine | 47 | 12- 50 | | | | | | |
| Phenylalanine | 54 | 25- 75 | | | | | | |
| Tryptophan | 87 | 20- 75 | | | | | | |
| Taurine | 3120 | 170- 1200 | | | | | | |
| Cysteine | 44 | 20- 57 | | | | | | |
| Arginine | 30 | 8- 50 | | | | | | |
| Histidine | 1030 | 270- 1150 | | | | | | |

NONESSENTIAL AMINO ACIDS

| NONESSENTIAL AMINO ACIDS | RESULT μM/g creatinine | REFERENCE RANGE | PERCENTILE | | | | |
|--------------------------|------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Alanine | 310 | 100- 500 | | | | | |
| Aspartate | 11 | 7- 23 | | | | | |
| Asparagine | 140 | 40- 180 | | | | | |
| Glutamine | 650 | 180- 530 | | | | | |
| Glutamate | 23 | 5- 45 | | | | | |
| Cystine | 26 | 20- 90 | | | | | |
| Glycine | 930 | 400- 1800 | | | | | |
| Tyrosine | 110 | 23- 113 | | | | | |
| Serine | 390 | 130- 400 | | | | | |
| Proline | 3.5 | 1- 45 | | | | | |

The Great Plains Laboratory, Inc. • 11813 W. 77 Street, Lenexa KS, 66214 • Tel: 913.341.8949 • Fax: 913.341.6207

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LAB#: PATIENT: SEX: AGE: CLIENT#:

GASTROINTESTINAL MARKERS

| GI MARKERS | RESULT μM/g creatinine | REFERENCE RANGE | PERCENTILE | | | | | | |
|-----------------------|---------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|--|--|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th | | |
| Ammonia | 32700 | 9000- 39000 | | | | | | | |
| Ethanolamine | 280 | 120- 330 | | | | | | | |
| Alpha-Aminoadipate | 110 | 7- 50 | | | | | | | |
| Threonine | 190 | 60- 230 | | | | | | | |
| Tryptophan | 87 | 20- 75 | | | | | | | |
| Taurine | 3120 | 170- 1200 | | | | | | | |
| | | | 68 th | | 95 th | | | | |
| Beta-alanine | 82 | < 20 | | | | | | | |
| Beta-aminoisobutyrate | 120 | < 300 | | | | | | | |
| Anserine | 67 | < 60 | | | | | | | |
| Carnosine | 160 | < 35 | | | | | | | |
| Gamma-aminobutyrate | 1.9 | < 15 | | | | | | | |
| Hydroxyproline | 7.4 | < 32 | | | | | | | |

MAGNESIUM DEPENDANT MARKERS

| MAGNESIUM MARKERS | RESULT μM/g creatinine | REFERENCE RANGE | PERCENTILE | | | | | | |
|----------------------|---------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|--|--|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th | | |
| Citrulline | 3 | 1- 24 | | | | | | | |
| Ethanolamine | 280 | 120- 330 | | | | | | | |
| Phosphoethanolamine | 46 | 15- 56 | | | | | | | |
| Phosphoserine | 0.25 | 0.06- 0.6 | | | | | | | |
| Serine | 390 | 130- 400 | | | | | | | |
| Taurine | 3120 | 170- 1200 | | | | | | | |
| | | | 68 th | | 95 th | | | | |
| Methionine Sulfoxide | 3.5 | < 10 | | | | | | | |

B6, B12, & FOLATE DEPENDANT MARKERS

| B-VITAMIN MARKERS | RESULT μM/g creatinine | REFERENCE RANGE | PERCENTILE | | | | | | |
|------------------------|---------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|--|--|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th | | |
| Serine | 390 | 130- 400 | | | | | | | |
| Alpha-aminoadipate | 110 | 7- 50 | | | | | | | |
| Cysteine | 44 | 20- 57 | | | | | | | |
| Cystathionine | 64 | 7- 40 | | | | | | | |
| 1-Methylhistidine | 400 | 75- 240 | | | | | | | |
| 3-Methylhistidine | 1800 | 50- 900 | | | | | | | |
| Alpha-amino.N.butyrate | 15 | 7- 50 | | | | | | | |
| | | | 68 th | | 95 th | | | | |
| Beta-aminoisobutyrate | 120 | < 300 | | | | | | | |
| Beta-alanine | 82 | < 20 | | | | | | | |
| Homocystine | < dl | < 5 | | | | | | | |
| Sarcosine | 4 | < 35 | | | | | | | |



LAB#:
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DETOXIFICATION MARKERS

Table with 7 columns: DETOX MARKERS, RESULT (µM/g creatinine), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Methionine, Cysteine, Taurine, Glutamine, Glycine, and Aspartate.

NEUROLOGICAL MARKERS

Table with 7 columns: NEUROLOGICAL MARKERS, RESULT (µM/g creatinine), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Ammonia, Glutamine, Phenylalanine, Tyrosine, Tryptophan, Taurine, Cystathionine, and Beta-alanine.

UREA CYCLE METABOLITES

Table with 7 columns: UREA CYCLE METABOLITES, RESULT (µM/g creatinine), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Arginine, Aspartate, Citrulline, Ornithine, Urea, Ammonia, Glutamine, and Asparagine.

SPECIMEN DATA

Comments:
Date Collected: Date Received: Date Completed:
Methodology: Collection Period: Body Surface Area:

THE FOLLOWING
SAMPLE REPORT IS
FOR THE PLASMA
VERSION OF THE
AMINO ACID
ANALYSIS

PLASMA AMINO ACIDS



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LAB#: _____
 PATIENT: _____
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 AGE: _____
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SPECIMEN VALIDITY

| SPECIMEN MARKERS | RESULT | REFERENCE RANGE | PERCENTILE | |
|-------------------------|--------|------------------------|------------------|------------------|
| | | | 5 th | 32 nd |
| Glutamine/Glutamate | 1.2 | > 8.5 | | |
| Asparagine/Aspartate | 1.6 | > 7.5 | | |
| Ammonia | 120 | < 30 μ moles/100ml | 68 th | 95 th |
| SPECIMEN VALIDITY INDEX | | | | |

ESSENTIAL / CONDITIONALLY INDISPENSABLE AMINO ACIDS

| ESSENTIAL AMINO ACIDS | RESULT μ moles/100ml | REFERENCE RANGE | PERCENTILE | | | | |
|-----------------------|--------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Methionine | 1.9 | 1.4- 3.2 | | | | | |
| Taurine | 25 | 4.5- 16 | | | | | |
| Lysine | 15 | 12- 24 | | | | | |
| Threonine | 9.4 | 6- 17 | | | | | |
| Tryptophan | 2.3 | 2.5- 6 | | | | | |
| Phenylalanine | 4.8 | 3- 8 | | | | | |
| Leucine | 10 | 6- 15 | | | | | |
| Isoleucine | 4.1 | 3.7- 9 | | | | | |
| Valine | 15 | 13- 29 | | | | | |
| Arginine | 1.3 | 4- 12 | | | | | |
| Histidine | 7.1 | 6- 10 | | | | | |

NONESSENTIAL AMINO ACIDS

| NONESSENTIAL AMINO ACIDS | RESULT μ moles/100ml | REFERENCE RANGE | PERCENTILE | | | | |
|--------------------------|--------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Alanine | 36 | 20- 54 | | | | | |
| Aspartate | 3.3 | 0.15- 1.6 | | | | | |
| Asparagine | 5.2 | 3.5- 7.5 | | | | | |
| Glutamine | 31 | 40- 69 | | | | | |
| Glutamate | 25 | 2- 15 | | | | | |
| Cystine | 2 | 1.5- 4.5 | | | | | |
| Glycine | 35 | 14- 40 | | | | | |
| Tyrosine | 5.6 | 3.5- 9 | | | | | |
| Serine | 12 | 6- 16 | | | | | |
| Proline | 15 | 9- 25 | | | | | |



LAB#: _____
 PATIENT: _____
 SEX: _____
 AGE: _____
 CLIENT#: _____

GASTROINTESTINAL MARKERS

| GI MARKERS | RESULT μmoles/100ml | REFERENCE RANGE | PERCENTILE | | | | |
|-----------------------|------------------------|-----------------|---|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Ethanolamine | 1.4 | 0.2- 1.3 | [Bar chart showing result at 50th percentile] | | | | |
| Threonine | 9.4 | 6- 17 | [Bar chart showing result at 50th percentile] | | | | |
| Tryptophan | 2.3 | 2.5- 6 | [Bar chart showing result at 50th percentile] | | | | |
| | | | 68 th | | 95 th | | |
| Alpha-Amino adipate | 0.14 | < 0.3 | [Bar chart showing result at 50th percentile] | | | | |
| Beta-alanine | 0.82 | < 1 | [Bar chart showing result at 50th percentile] | | | | |
| Beta-aminoisobutyrate | 0.17 | < 0.5 | [Bar chart showing result at 50th percentile] | | | | |
| Anserine | < dl | < 0.1 | [Bar chart showing result at 50th percentile] | | | | |
| Carnosine | < dl | < 0.1 | [Bar chart showing result at 50th percentile] | | | | |
| Gamma-aminobutyrate | < dl | < 0.1 | [Bar chart showing result at 50th percentile] | | | | |
| Hydroxyproline | 2.1 | < 3.5 | [Bar chart showing result at 50th percentile] | | | | |

MAGNESIUM DEPENDANT MARKERS

| MAGNESIUM MARKERS | RESULT μmoles/100ml | REFERENCE RANGE | PERCENTILE | | | | |
|----------------------|------------------------|-----------------|---|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Citrulline | 3.4 | 1.6- 3.9 | [Bar chart showing result at 50th percentile] | | | | |
| Ethanolamine | 1.4 | 0.2- 1.3 | [Bar chart showing result at 50th percentile] | | | | |
| Phosphoethanolamine | 1.6 | 0.08- 1 | [Bar chart showing result at 50th percentile] | | | | |
| Phosphoserine | 0.041 | 0.013- 0.025 | [Bar chart showing result at 50th percentile] | | | | |
| Serine | 12 | 6- 16 | [Bar chart showing result at 50th percentile] | | | | |
| Taurine | 25 | 4.5- 16 | [Bar chart showing result at 50th percentile] | | | | |
| | | | 68 th | | 95 th | | |
| Methionine Sulfoxide | 0.63 | < 1 | [Bar chart showing result at 50th percentile] | | | | |

B6, B12, & FOLATE DEPENDANT MARKERS

| B-VITAMIN MARKERS | RESULT μmoles/100ml | REFERENCE RANGE | PERCENTILE | | | | |
|------------------------|------------------------|-----------------|---|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Cystine | 2 | 1.5- 4.5 | [Bar chart showing result at 50th percentile] | | | | |
| Alpha amino-N-butyrate | 1.9 | 0.8- 3.3 | [Bar chart showing result at 50th percentile] | | | | |
| Histidine | 7.1 | 6- 10 | [Bar chart showing result at 50th percentile] | | | | |
| Serine | 12 | 6- 16 | [Bar chart showing result at 50th percentile] | | | | |
| | | | 68 th | | 95 th | | |
| Cystathionine | < dl | < 0.1 | [Bar chart showing result at 50th percentile] | | | | |
| Alpha-amino adipate | 0.14 | < 0.3 | [Bar chart showing result at 50th percentile] | | | | |
| Beta-aminoisobutyrate | 0.17 | < 0.5 | [Bar chart showing result at 50th percentile] | | | | |
| Beta-alanine | 0.82 | < 1 | [Bar chart showing result at 50th percentile] | | | | |
| Homocystine | 0.005 | < 0.05 | [Bar chart showing result at 50th percentile] | | | | |
| Sarcosine | 0.47 | < 0.8 | [Bar chart showing result at 50th percentile] | | | | |
| 1-Methylhistidine | 0.28 | < 1.5 | [Bar chart showing result at 50th percentile] | | | | |
| 3-Methylhistidine | 0.37 | < 3.5 | [Bar chart showing result at 50th percentile] | | | | |

SAMPLE REPORT



LAB#:
PATIENT:
SEX:
AGE:
CLIENT#:

Table with 7 columns: DETOX MARKERS, RESULT (μmoles/100ml), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Methionine, Cystine, Taurine, Glutamine, Glycine, and Aspartate.

Table with 7 columns: NEUROLOGICAL MARKERS, RESULT (μmoles/100ml), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Glutamine, Phenylalanine, Tyrosine, Tryptophan, Taurine, Cystine, Beta-alanine, and Cystathionine.

Table with 7 columns: UREA CYCLE METABOLITES, RESULT (μmoles/100ml), REFERENCE RANGE, and PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th). Rows include Arginine, Aspartate, Citrulline, Ornithine, Urea, Glutamine, and Asparagine.

SPECIMEN DATA

Comments:
Date Collected: Date Received: Date Completed: Methodology: HPLC
Reference ranges are representative of a healthy population under fasting (6-8 hrs) conditions.

V07.02