

Patient NAME  
 DOB/Age/Gender  
 Patient ID / UHID  
 Referred BY  
 Sample Collected

Report STATUS :  
 Barcode NO :  
 Sample Type :  
 Report Date :

## #Amino Acid Quantitative

Test Name	Results	Units	Bio. Ref. Interval
<b>Amino Acid Quantitative, Plasma (LC-MS/MS)</b>			
Alanine	352.28	umol/L	200 - 579
Allo-isoleucine	4.80	umol/L	<5
Alpha-aminobutyric acid	<b>57.62</b>	umol/L	9 - 37
Arginine	37.89	umol/L	32 - 120
Asparagine	42.28	umol/L	37 - 92
Aspartic acid	<b>8.88</b>	umol/L	<7
Citrulline	37.88	umol/L	17 - 46
Cystine	79.68	umol/L	3 - 95
Glutamic acid	<b>122.13</b>	umol/L	13 - 113
Glutamine	495.57	umol/L	371 - 957
Glycine	274.89	umol/L	126 - 490
Histidine	93.91	umol/L	39 - 123
Hydroxyproline	<b>48.21</b>	umol/L	4 - 29
Isoleucine	80.39	umol/L	36 - 107
Leucine	158.52	umol/L	68 - 183
Lysine	182.54	umol/L	103 - 255
Methionine	26.58	umol/L	4 - 44
Ornithine	74.83	umol/L	38 - 130
Phenylalanine	70.45	umol/L	35 - 80
Proline	343.82	umol/L	97 - 368
Sarcosine	3.59	umol/L	<5
Serine	178.20	umol/L	63 - 187
Taurine	120.88	umol/L	42 - 156
Threonine	204.02	umol/L	85 - 231
Tryptophane	53.71	umol/L	29 - 77
Tyrosine	88.91	umol/L	31 - 90
Valine	283.22	umol/L	136 - 309

**Interpretation**

REFERENCE RANGES IN umol/L



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AMINO ACID	0-2 MONTHS	3-8 MONTHS	9 MONTHS-2 YEARS	3-12 YEARS	>13 YEARS
1-Methyl-histidine	4-28	0-43	0-44	0-42	72-124
3-Methyl-histidine	5-33	0-5	0-5	0-5	0
Alpha Amino adipic acid	0	0	0	0	0-6
Alpha Aminobutyric acid	14-52	8-24	3-26	4-31	5-41
Alanine	212-504	131-710	143-439	152-547	177-583
Anserine	0	0	0	0	0
Arginine	34-96	6-140	12-133	10-140	15-128
Argino succinic acid	0-1	0-1	0-1	0-1	0-1
Asparagine	90-295	29-132	21-95	23-112	35-74
Aspartic acid	24-50	20-129	0-23	1-24	1-25
Beta -Amino-isobutyric acid	14-52	8-24	3-26	4-31	5-41
Beta-Alanine	≤ 8	≤ 8	≤ 8	≤ 5	≤ 5
Carnosine	NA	0-19	0	0	0
Citrulline	20-87	10-45	3-35	1-46	12-55
Cystathionine	5-10	0-3	0-5	0-3	0-3
Cystine	15-70	17-98	16-84	5-45	5-82
Ethanolamine	0	0-115	0-4	0-7	0-153
Gamma Amino isobutyric acid	<1	<1	≤ 2	≤ 2	≤ 2
Glutamine	248-850	376-709	246-1182	254-823	205-756
Glutamic acid	107-276	62-620	10-133	5-150	10-131
Glycine	298-602	232-740	81-436	127-341	151-490
Homocitrulline	ND	ND	ND	ND	ND
Homocystine	<1	<1	<1	<1	<1
Histidine	72-134	30-138	41-101	41-125	72-124
Hydroxylysine	0	0-7	0-7	0-2	0
Hydroxyproline	0-80	0-91	0-63	3-45	3-53
Isoleucine	23-85	26-91	31-86	22-107	30-108
Leucine	151-220	48-160	47-155	49-216	72-201
Lysine	128-255	92-325	52-196	48-284	116-296
Methionine	37-91	10-60	9-42	7-47	10-42
Methionine sulfoxide	0	0	0	0	0
Norleucine	NA	NA	NA	NA	NA
Norvaline	NA	NA	NA	NA	NA
Ornithine	77-212	48-211	22-103	10-163	48-195
Phosphoethanolamine	5-35	3-27	0-6	0-69	0-40
Phenylalanine	98-213	38-137	31-75	26-91	35-85
Proline	92-310	110-417	52-298	59-369	97-329
Phosphoserine	10-45	7-47	1-20	1-30	2-14



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Sarcosine	0	0-625	0	0-9	0
Serine	27-248	99-395	71-186	69-187	58-181
Taurine	151-411	46-492	15-143	10-170	54-210
Threonine	150-330	90-329	24-174	35-226	60-225
Tryptophan	28-136	0-60	23-71	0-79	10-140
Tyrosine	147-420	55-147	22-108	24-115	34-112
Valine	99-220	86-190	64-294	74-321	119-336

**Note**

1. Results to be clinically correlated.
2. Norleucine & Norvaline aminoacids do not play a significant role in inborn errors of amino acid metabolism

**Comments**

Amino Acids are basic structural units that comprise proteins and are found throughout the body. Amino acid disorders are caused by impaired metabolism or transport of proteins and amino acids which results in accumulation or deficiency of one or more amino acids in biological fluids. Inborn errors of amino acid metabolism usually manifest in infancy & childhood. Affected patients may have failure to thrive, neurological symptoms, digestive problems, locomotor retardation, developmental delays & mental retardation. As essential amino acids are obtained through an individuals diet, treatment for amino acid disorders involves very specific dietary modifications which have to be very closely monitored by periodic amino acid analysis.

\*\*\* End Of Report \*\*\*



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