

Institution			
Full Name	IR No.	Accession No.	
Patient ID	Department	Collected	
Date of Birth	Client	Received	
Age/Sex	Ordering Physician	Tested	
Remark	Sepcimen Type	Reported	

## Test Result

Unit: umol/L

Amain a Aaida	Reference Range					Unit: µmoi/
Amino Acids	Premature*	0-1 mon.	2-24 mon.	3-18 year	Adult	Result
Alanine	212~504	131~710	143~439	152~547	177~583	375
β-alanine	0	0~10	0~7	0~7	0~12	5
Anserine	0	0	0	0	0	0
α-aminoadipic acid	0	0	0	0	0~6	2
α-amino-n-butyric acid	14~52	8~24	3~26	4~31	5~41	16
r-aminobutyric acid	0	0~2	0	0	0	0
β-aminoisobutyric acid	0	0	0	0	0	0
Arginine	34~96	6~140	12~133	10~140	15~128	41
Asparagine	90~295	29~132	21~95	23~112	35~74	6
Aspartic acid	24~50	20~129	0~23	1~24	1~25	9
Carnosine	0	0~19	0	0	0	0
Citrulline	20~87	10~45	3~35	1~46	12~55	17
Cystathionine	5~10	0~3	0~5	0~3	0~3	0
Cystine	15~70	17~98	16~84	5~45	5~82	1
Ethanolamine	11~95	0~115	0~4	0~7	0~153	14
Glutamic acid	107~276	62~620	10~133	5~150	10~131	20
Glutamine	248~850	376~709	246~1182	254~823	205~756	440
Glycine	298~602	232~740	81~436	127~341	151~490	236
Histidine	72~134	30~138	41~101	41~125	72~124	76
Homocystine	3~20	0	0	0~5	0	0
Hydroxylysine	0	0~7	0~7	0~2	0	0
Hydroxyproline	0~80	0~91	0~63	3~45	0~53	33
Isoleucine	23~85	26~91	31~86	22~107	30~108	69
Leucine	151~220	48~160	47~155	49~216	72~201	117
Lysine	128~255	92~325	52~196	48~284	116~296	241
Methionine	37~91	10~60	9~42	7~47	10~42	31
1-Methylhistidine	4~28	0~43	0~44	0~42	0~39	1
3-Methylhistidine	5~33	0~5	0~5	0~5	0~8	5
Ornithine	77~212	48~212	22~103	10~163	48~195	119

<sup>\*:</sup> First 6 weeks

NOTE : All the relevant date and time in this test result are reported in Korea Standard Time.

Test result can be affected by shipping conditions or its specimen stability

Medical Techologist:

Park, Euna M.T. (26000)

Lab Director(Medical doctor):



Lee, Junhyung



GC Labs is accredited by the Korean Society for Laboratory Medicine (KSLM) and the Collage of American Pathologists (CAP).



**Green Cross Laboratories** 











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Amino Acids	Reference Range					Dooult	
ATTITIO ACIUS	Premature*	0-1 mon.	2-24 mon.	3-18 year	Adult	Result	
Phenylalanine	98~213	38~137	31~75	26~91	35~85	35	
Phosphoethanolamine	5~35	3~27	0~6	0~69	0~40	5	
Phosphoserine	10~45	7~47	1~20	1~30	2~14	2	
Proline	92~310	110~417	52~298	59~369	97~329	123	
Sarcosine	0	0~625	0	0~9	0	0	
Serine	127~248	99~395	71~186	69~187	58~181	108	
Taurine	151~411	46~492	15~143	10~170	54~210	67	
Threonine	150~330	90~329	24~174	35~226	60~225	96	
Tryptophan	28~136	0~60	23~71	0~79	10~140	58	
Tyrosine	147~420	55~147	22~108	24~115	34~112	63	
Valine	99~220	86~190	64~294	74~321	119~336	213	

<sup>\*:</sup> First 6 weeks

## Test Method

LC-MS/MS

## Comment

- 1. Asparagine, Cystine was Decreased
- 2. R/O) Conditions ass. w. decreased production of Cystine.
  - (e.g., Cystathionine beta-synthase deficiency, Molybdenum cofactor deficiency, Sulfite oxidase deficiency, etc.)
- \* Increases of Methionine, Homocystine, Taurine were not observed. R/O) Non-specific condition
- 3. Rec) Urine OA, Urine AA if indicated
- For better interpretation of the test results, it is recommended that a information of the patient's sex, age, and Clinical Symptoms be sent along with the sample.
- \* This test was developed and its performance characteristics were determined by greencross Laboratoies

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Medical Techologist:

Lab Director(Medical doctor):

Park, Euna M.T. (26000)

Yi, Ahram M.D.(1121)arrho



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