MyDiagnostics
Unit of Pytheos Health Systems Pvt. Ltd.
1st Floor, SPL No. 10, KSSIDC Industrial
Area Mahadevpura, Bengaluru 560048

0000009561665

Name: SAMPLE REPORT

Age/Gender

Referred By

Client Name

Collection Date:

Report Release Time

Section	Details	Section Id
Section 1	Neurotransmitter Metabolism	R1

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Authorized Signatory
Dr. Pramod Ingale
MD (Biochemistry)

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Interpretation R.1 -Neurotransmitter Metabolism

Sr.No	CONDITION	STATUS

Section R.1-Neurotransmitter Metabolism

Intercellular communication in the brain requires precise control over the duration and intensity of neurotransmitter release at specific sites. After their release at the synapse, they activate pre-and post-synaptic receptors. To terminate synaptic transmission, neurotransmitters are in turn, inactivated by either enzymatic degradation or active transport in neuronal cells by neurotransmitter transporters. Epinephrine, also called adrenaline is mainly synthesized in adrenal medulla and stored in chromaffin granules and released during acute stress and crisis. Therefore epinephrine and norepinephrine are released in response to flight, fight, fright, exercise and hypoglycemia. Epinephrine is catabolised to metanephrine and similarly norepinephrine is catabolised to normetanephrine. Both are then acted upon by mono amine oxidase (MAO) to form end product vanillylmandelic acid (VMA). Dopamine oxidatively deaminated to Homovanillic acid (HVA). HVA and VMA both are classical indicators of mental stress and anxiety. Impaired tryptophan pathway results in elevated Quinolinate generation. It is a dicarboxylic acid with potent neurotoxicity involved in mood disorders. Kynurenate is a normal breakdown product of tryptophan. It acts as anti-excitotoxic and anticonvulsant owing to its antagonistic action towards several excitatory amino acid receptors. Defective Tryptophan metabolism due to B6 deficiency may raise Kynurenate while excess tryptophan metabolism produces 5-hydroxyindole acetic acid (5HIAA). Glutamate and Aspartate are acidic non-essential amino acid neurotransmitters involved in neuronal excitation while Gamma amino bytyrate (GABA) and Glycine are inhibitory neurotransmitters.

Sr.No	Investigation	Observed Value	Biological Ref. Interval	Risk Graph
Neurotransmitter Metabolism				
Blood Markers		Unit - nmol/ml		
1	Aspartic acid	6.79	0.00 - 7.00	
2	Glutamic Acid	112.89	13.00 - 113.00	
3	Glycine	191.82	126.00 - 490.00	
4	GABA	0.42	0.00 - 100.00	
Urinary Markers		Unit - mmol/mol Cr		
1	HVA	5.09	0.08 - 5.17	

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Sr.No	Investigation	Observed Value	Biological Ref. Interval	Risk Graph

Neurotransmitter Metabolism

Urinary Markers

2	VMA	2.38	0.03 - 2.96	
3	kynurate	0.03	0.0 - 4.48	
4	Qinolinate	0.17	0.0 - 3.6	
5	5HindoleAA	0.01	0.0 - 0.1	

End Of Report

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Understanding your report

In the technical report section, you will see the graphic representation of all metabolic markers in the scope of the test conducted on your sample(s) and interpreted by our metabolic experts. The metabolic markers have been clubbed under various classes like - Carbohydrate Metabolism, Fatty Acid Metabolism, Vitamins Metabolism, Muscles Catabolism etc.

Definitions

Metabolites - Metabolites in your blood/urine samples are the Markers of Metabolism and act as the ' health indicators'. They characterize your state of metabolism and help make inferences in case of non-specific health conditions which can be an outcome of problems with your metabolism. Tracking the levels of these metabolites is important to ensure that early signals of diabetes related complications can be picked up.

Control Values - The 'Normal Limit' within which the value of a metabolic marker should ideally fall.

Observed *(your)* Value - The 'Actual Value' of a Metabolic Marker in your sample.

Understanding the Risk-Bar

Risk Bar - The horizontal bar as a pictorial representation of the observed values of the metabolic markers against the control values.

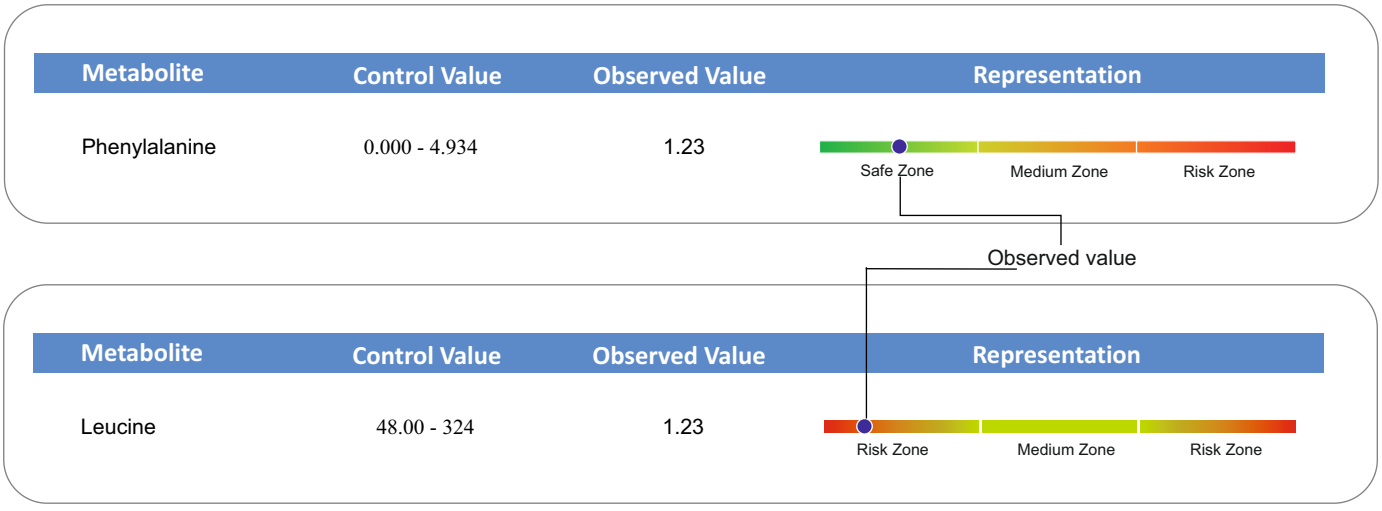
Safe Zone *(Green Color)*- If the value of markers measured in your sample fall in this region *(signified by the green zone)*, you can relax and maintain the lifestyle you have.

Risk Zone *(Red Color)* - If the value of marker(s) measured in your sample falls in this region *(signified by the red zone)*, it will be a matter of concern. You must consult your family physician or a metabolism expert.

Medium Zone *(color transition zone)* - If the value of a marker measured in your sample falls in this region *(signified by the color transition from green to red)*, you may need to bring in changes in your lifestyle, diet or medication, depending on the particular case. Any modifications, however, have to be routed through a medical practitioner.

ND - Non Detected. This implies that the marker was not detected; and hence not to be considered in the Risk Zone.

Pointer - The 'blue dot' on the risk bar. It represents the actual value of a particular metabolic marker found in your sample.



The "Risk-Bars" have multiple color codes.
A. Green *(safe)* Zone on left and Red *(Risk)* Zone on right end implies that the normal values of your metabolic marker should be on left side of the risk bar. Higher values imply risk.
B. Red *(Risk)* Zone on both ends imply that the normal value of your metabolic marker should be in the middle part of risk bar. Lower than control value or higher than control value, will both imply a risk.

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References

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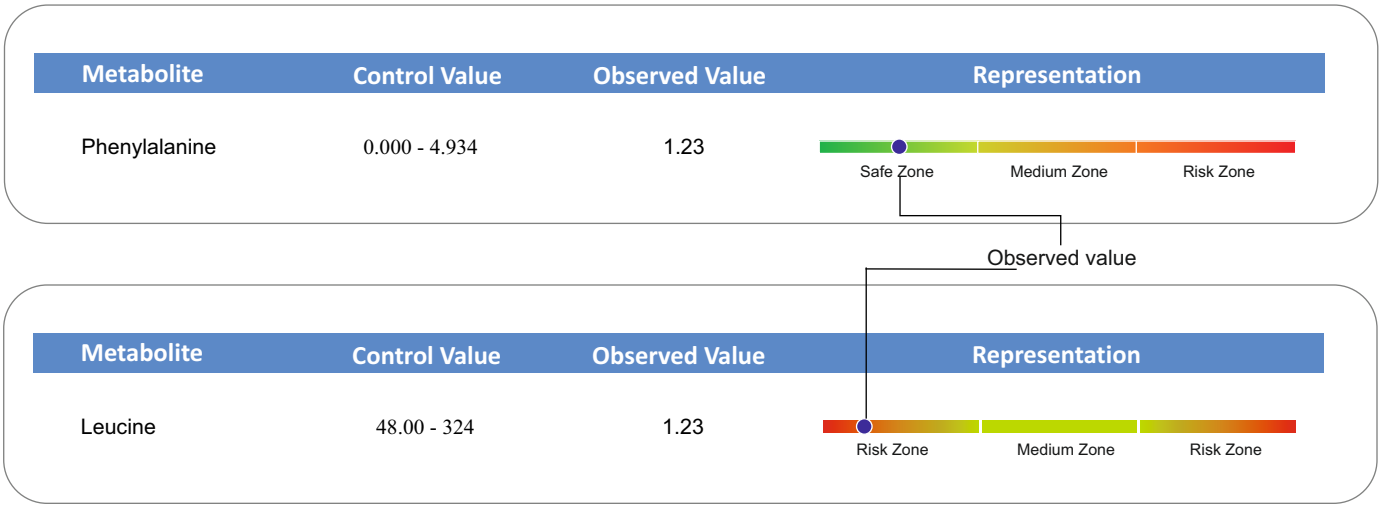

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