METAOMICS

FMD®
GET TO THE ROOT CAUSE
www.fmdiagnostics.com
A unit of Functional Medicine Institute Pvt. Ltd.

LABORATORY REPORT • FUNCTIONAL NUTRITION

Metaroot Mini

Organic Acids + Amino Acids • 80 markers • one urine sample



10 functional areas

27 nutrient & function indicators

1 urine sample, no blood draw

PREPARED FOR

Demo Client — Abnormal

ISO 15189:2022 | NABL Accredited | LC-MS/MS

LAB ID **FMD-MM-DEMO-A01**	AGE / SEX **42 years / Female**	COLLECTED **14-Nov-2026**
REPORTED **18-Nov-2026**	REFERRING DR. **Dr. Demo Physician**	SAMPLE **Urine • LC-MS/MS**

SAMPLE REPORT — DUMMY DATA

REPORT SUMMARY

Client Name	Lab ID	Age / Sex	Collected	Reported	Creatinine
Demo Client — Abnormal	**FMD-MM-DEMO-A01**	**42 years / Female**	**14-Nov-2026**	**18-Nov-2026**	**7.10 mmol/L**

Clinical information provided: Fatigue, bloating and poor sleep for 6 months; vegetarian diet; recent antibiotic course; no current supplements.

OVERALL FUNCTIONAL BURDEN

HIGH

5.6 mean domain score / 9.9

2 domain(s) High **6** Moderate

40 of 80 analytes outside range

Overall functional burden is high across more than one area. Physician-guided review and follow-up testing are suggested.

FUNCTIONAL DOMAIN SCORES



● **Minimal** 0 – 3.5 ● **Moderate** 3.6 – 6.5 ● **High** 6.6 – 9.9

Score combines how far each marker is from range, how central it is to the pathway (core vs supportive) and agreement between markers.

AREAS FOR ATTENTION

● **Vitamin C** (High) ↓ Ascorbic acid not detected	● **Vitamin B6** (High) ↓ Pyridoxic acid 2.10 (0.42× LLN); ↑ Xanthurenic acid 0.98 (2.1× ULN)
● **Clostridia markers** (Moderate) ↑ 4-Hydroxyphenylacetic acid 31.50 (1.7× ULN); ↑ HPHPA 412.0 (2.0× ULN)	● **Yeast / fungal markers** (Moderate) ↑ Arabinose 64.00 (2.2× ULN); ↑ Citramalic acid 13.80 (1.4× ULN)
● **Glutathione status** (Moderate) ↑ Pyroglutamic acid 48.50 (1.4× ULN); ↑ Glutathione disulfide 0.21 (2.1× ULN)	● **Mitochondrial energy flux** (Moderate) ↑ Succinic acid 16.80 (1.8× ULN); ↑ Fumaric acid 17.50 (1.3× ULN)
● **Essential amino acids** (Moderate) ↓ Histidine 22.00 (0.73× LLN); ↓ Lysine 3.60 (0.72× LLN)	● **Folate** (Moderate) ↑ Formiminoglutamic acid 7.40 (2.3× ULN); ↑ Uracil 11.20 (1.2× ULN)
● **Carnitine / fat oxidation** (Moderate) ↑ Adipic acid 5.10 (1.3× ULN); ↑ Suberic acid 3.40 (1.5× ULN)	● **Glucose oxidation** (Moderate) ↑ Pyruvic acid 12.40 (1.4× ULN); ↑ 2-Hydroxybutyric acid 2.90 (1.6× ULN)

SAMPLE REPORT FOR DEMO PURPOSES ONLY

NUTRIENT & FUNCTION INDICATORS

Each indicator combines the markers most specific to that nutrient or function; the level shows the degree of functional concern.

VITAMINS & COFACTORS	
Vitamin B12	MODERATE
Folate	MODERATE
Vitamin B1 (thiamine)	MODERATE
Vitamin B2 (riboflavin)	MODERATE
Vitamin B5 (pantothenate)	MODERATE
Vitamin B6	HIGH
Biotin	MINIMAL
Vitamin C	HIGH
CoQ10 pathway	MODERATE
ENERGY & METABOLISM	
Carnitine / fat oxidation	MODERATE
Glucose oxidation	MODERATE
Ketone production	MINIMAL
Mitochondrial energy flux	MODERATE

GUT	
Yeast / fungal markers	MODERATE
Bacterial markers	MINIMAL
Clostridia markers	MODERATE
DETOX & PROTECTION	
Glutathione status	MODERATE
Oxidative damage	MODERATE
Ammonia handling	MINIMAL
Solvent / toxicant exposure	MINIMAL
PROTEIN & MUSCLE	
Oxalate (kidney-stone context)	MODERATE
Muscle turnover	MINIMAL
NEUROTRANSMITTERS	
Catecholamine turnover	MODERATE
Serotonin turnover	MINIMAL
Kynurenine / inflammation	MODERATE
AMINO ACIDS	
Essential amino acids	MODERATE
Conditionally essential AAs	MODERATE

FUNCTIONAL FINDINGS SUMMARY

Functional Domain	Key Findings (Markers)	Functional Significance	Score / Level
1. B12, Folate & Methylation	↑ Formiminoglutamic acid 7.40 (2.3× ULN) ↑ Methylmalonic acid 3.65 (1.6× ULN) ↑ Uracil 11.20 (1.2× ULN)	Methylmalonic acid elevation is consistent with reduced functional vitamin B12 status; serum B12 or holotranscobalamin may help confirm. The pattern is suggestive of functional folate insufficiency affecting one-carbon metabolism and nucleotide synthesis.	5.5 MODERATE
2. Vitamin & Cofactor Status	↓ Ascorbic acid not detected ↓ Pyridoxic acid 2.10 (0.42× LLN) ↑ Xanthurenic acid 0.98 (2.1× ULN) ↓ Pantothenic acid 1.35 (0.68× LLN) ↑ α-Ketoisovaleric acid 3.05 (1.5× ULN)	Branched-chain keto acid and/or pyruvate elevation may indicate an increased thiamine (B1) requirement at the BCKD and pyruvate dehydrogenase complexes. Glutaric and/or ethylmalonic acid elevation is suggestive of an increased riboflavin (B2) requirement for flavin-dependent dehydrogenases. Pantothenic acid below range is suggestive of reduced vitamin B5 intake, relevant to coenzyme A-dependent energy metabolism. The pattern is consistent with functional vitamin B6 insufficiency, which may affect amino acid and neurotransmitter metabolism. Ascorbic acid below the optimal level is suggestive of sub-optimal vitamin C intake, relevant to antioxidant recycling and collagen synthesis.	9.2 HIGH
3. Fatty Acid Oxidation & Carnitine	↑ Hexanoylglycine 1.25 (1.6× ULN) ↑ Suberic acid 3.40 (1.5× ULN) ↑ Adipic acid 5.10 (1.3× ULN)	Dicarboxylic acid and/or acylglycine elevation is consistent with fatty acid oxidation running below demand; carnitine and riboflavin status, fasting and MCT intake warrant consideration.	4.1 MODERATE

SAMPLE REPORT – FOR DEMONSTRATION ONLY

Functional Domain	Key Findings (Markers)	Functional Significance	Score / Level
4. Carbohydrate & Ketone Metabolism	↑ 2-Hydroxybutyric acid 2.90 (1.6× ULN) ↑ Pyruvic acid 12.40 (1.4× ULN)	The lactate, pyruvate and 2-hydroxybutyrate pattern may indicate reduced glucose oxidation efficiency; insulin sensitivity warrants consideration where 2-hydroxybutyrate is raised.	3.3 MINIMAL
5. Energy Production (Krebs Cycle)	↑ Succinic acid 16.80 (1.8× ULN) ↑ Malic acid 2.60 (1.4× ULN) ↑ 3-Methylglutaconic acid 6.10 (1.4× ULN) ↑ Fumaric acid 17.50 (1.3× ULN)	HMG and/or 3-methylglutaconic acid elevation may indicate increased CoQ10 pathway demand or mitochondrial membrane stress. Krebs cycle intermediate elevation is suggestive of reduced mitochondrial energy flux at cofactor-dependent steps (B-vitamins, magnesium, iron, CoQ10).	5.6 MODERATE
6. Gut Microbiome & Dysbiosis	↑ Arabinose 64.00 (2.2× ULN) ↑ Tartaric acid 9.60 (2.1× ULN) ↑ HPHPA 412.0 (2.0× ULN) ↑ 4-Hydroxyphenylacetic acid 31.50 (1.7× ULN) ↑ p-Cresyl sulfate 118.0 (1.6× ULN)	Yeast or mould-associated metabolite elevation is suggestive of fungal overgrowth or dietary/environmental exposure; correlation with GI symptoms is suggested. Clostridia-associated metabolite elevation is suggestive of Clostridia overgrowth; this may affect dopamine metabolism and warrants clinical correlation.	7.8 HIGH
7. Detoxification & Oxidative Stress	↑ Glutathione disulfide 0.21 (2.1× ULN) ↓ N-Acetylcysteine 0.09 (0.60× LLN) ↑ 8-Hydroxydeoxyguanosine 2.45 (1.4× ULN) ↑ Pyroglutamic acid 48.50 (1.4× ULN)	The pattern is consistent with increased glutathione demand or reduced recycling capacity. Oxidative or nitrosative damage marker elevation is suggestive of increased oxidative stress burden.	6.2 MODERATE
8. Protein, Muscle & Oxalate	↑ Oxalic acid 78.00 (1.7× ULN) ↑ Glycolic acid 142.0 (1.2× ULN)	Oxalate pathway elevation is suggestive of increased oxalate load, which is relevant to kidney-stone risk; dietary oxalate, hydration and B6 status warrant consideration.	3.0 MINIMAL
9. Neurotransmitter Metabolism	↑ Quinolinic acid 6.20 (1.6× ULN) ↑ Homovanillic acid 5.40 (1.5× ULN) ↑ Vanilmandelic acid 4.60 (1.2× ULN)	Catecholamine metabolite elevation may indicate increased stress-related catecholamine turnover. The kynurenine pattern is suggestive of inflammation-driven tryptophan metabolism; B6 status influences this pathway.	4.5 MODERATE
10. Amino Acid Sufficiency	↓ Serine 21.00 (0.70× LLN) ↓ Lysine 3.60 (0.72× LLN) ↓ Methionine 0.72 (0.72× LLN) ↓ Histidine 22.00 (0.73× LLN) ↓ Tyrosine 6.20 (0.78× LLN)	Essential amino acids below range are suggestive of reduced amino acid availability, which may relate to protein intake, digestion or absorption. Conditionally essential amino acids below range are suggestive of reduced availability for detoxification, one-carbon and neurotransmitter pathways.	6.4 MODERATE

DETAILED RESULTS

80 analytes across 10 sections. Results in mmol/mol creatinine. ▲ H above range • ▼ L below range • ● N within range • ND not detected • × = multiple of the reference limit.

SECTION 1 — B12, FOLATE & METHYLATION

Score **5.5** / 9.9 MODERATE

Functional markers of vitamin B12 and folate sufficiency, and of folate-dependent nucleotide synthesis. Methylmalonic acid rises when B12-dependent methylmalonyl-CoA mutase activity is limited; FIGLU rises when folate-dependent histidine catabolism is limited.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
1	**Methylmalonic acid (MMA)**	Functional vitamin B12 status	**3.65**	1.59×	▲ H	≤ 2.30
2	**Formiminoglutamic acid (FIGLU)**	Functional folate status	**7.40**	2.31×	▲ H	≤ 3.20
3	**Uracil**	Folate-dependent pyrimidine synthesis	**11.20**	1.15×	▲ H	≤ 9.70
4	**Thymine**	Folate-dependent thymidylate synthesis	**0.26**		● N	≤ 0.56

SECTION 2 — VITAMIN & COFACTOR STATUS

Score **9.2** / 9.9 — HIGH

Direct and functional markers of B-vitamin, vitamin C and CoQ10 status. Direct markers (pyridoxic, pantothenic and ascorbic acid) reflect recent intake; functional markers rise when the cofactor-dependent enzyme step is not fully supported.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
5	**Pyridoxic acid (B6)**	Direct vitamin B6 status	**2.10**	0.42×	▼ L	5.00 – 34.00
6	**Xanthurenic acid**	Functional B6 need (kynurenine pathway)	**0.98**	2.13×	▲ H	≤ 0.46
7	**Pantothenic acid (B5)**	Direct vitamin B5 status	**1.35**	0.68×	▼ L	2.00 – 10.00
8	**Glutaric acid**	Functional riboflavin (B2) need	**0.71**	1.42×	▲ H	0.04 – 0.50
9	**α-Ketoisovaleric acid**	Functional thiamine (B1) need	**3.05**	1.45×	▲ H	≤ 2.10
10	**α-Ketoisocaproic acid**	Functional thiamine (B1) need	**2.90**	1.45×	▲ H	≤ 2.00
11	**3-Hydroxyisovaleric acid**	Functional biotin need	**16.80**		● N	≤ 40.00
12	**2-Methylcitric acid**	Functional biotin need	**1.57**		● N	0.19 – 2.70
13	**Ascorbic acid (Vitamin C)**	Vitamin C status	**ND**		▼ L	≥ 40.00
14	**3-Hydroxy-3-methylglutaric acid (HMG)**	CoQ10 synthesis pathway	**18.42**		● N	0.17 – 39.00

SECTION 3 — FATTY ACID OXIDATION & CARNITINE

Score **4.1** / 9.9 — MODERATE

Dicarboxylic acids and acylglycines appear when mitochondrial β-oxidation is not keeping pace with fat supply, which may reflect carnitine, riboflavin (B2) or CoQ10 need, fasting, or a high intake of medium-chain triglycerides.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
15	**Adipic acid**	Fatty acid β-oxidation	**5.10**	1.34×	▲ H	0.04 – 3.80
16	**Suberic acid**	Fatty acid β-oxidation	**3.40**	1.55×	▲ H	0.18 – 2.20
17	**Sebacic acid**	Fatty acid β-oxidation	**0.11**		● N	≤ 0.24
18	**Ethylmalonic + Methylsuccinic acid**	Short-chain fat oxidation / B2	**2.81**		● N	0.54 – 5.00
19	**Hexanoylglycine**	Medium-chain fat oxidation	**1.25**	1.56×	▲ H	≤ 0.80
20	**Suberylglycine**	Medium-chain fat oxidation	**1.62**		● N	≤ 5.40

SECTION 4 — CARBOHYDRATE & KETONE METABOLISM

Score **3.3** / 9.9 — MINIMAL

Markers of glucose oxidation, glycolytic balance and ketone production. 2-Hydroxybutyric acid is an early marker associated with insulin resistance and increased glutathione demand.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
21	**Lactic acid**	Anaerobic glycolysis	**28.10**		● N	5 – 60.00
22	**Pyruvic acid**	Glucose oxidation (PDH: B1, B3, lipoic acid)	**12.40**	1.36×	▲ H	2 – 9.10
23	**3-Hydroxybutyric acid**	Ketone production	**1.18**		● N	≤ 3.10
24	**Acetoacetic acid**	Ketone production	**4.70**		● N	≤ 10.00
25	**2-Hydroxybutyric acid**	Insulin resistance / redox demand	**2.90**	1.61×	▲ H	0.03 – 1.80

SECTION 5 — ENERGY PRODUCTION (KREBS CYCLE)

Score **5.6** / 9.9 — MODERATE

Intermediates of the citric acid cycle, the main route of cellular energy production. Patterns along the cycle point to the enzyme steps — and the B-vitamin, iron, magnesium and CoQ10 cofactors — that may need support.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
26	**Citric acid**	Krebs cycle entry	**364.2**		● N	150 – 507.00
27	**Cis-aconitic acid**	Aconitase (iron-dependent)	**16.13**		● N	6.8 – 28.00
28	**Isocitric acid**	Isocitrate dehydrogenase	**49.07**		● N	20 – 77.00
29	**α-Ketoglutaric acid**	α-KG dehydrogenase (B1, B2, B3, B5, lipoate)	**15.80**		● N	5 – 35.00
30	**Succinic acid**	Succinate dehydrogenase (B2, CoQ10)	**16.80**	1.81×	▲ H	0.5 – 9.30
31	**Fumaric acid**	Fumarase / Complex II flux	**17.50**	1.35×	▲ H	< 13.00
32	**Malic acid**	Malate dehydrogenase (B3)	**2.60**	1.44×	▲ H	0.06 – 1.80
33	**3-Methylglutaconic acid**	Mitochondrial membrane stress	**6.10**	1.36×	▲ H	≤ 4.50

SAMPLE REPORT • FOR DEMONSTRATION DATA

SECTION 6 — GUT MICROBIOME & DYSBIOSIS

Score **7.8** / 9.9 — **HIGH**

Microbial metabolites absorbed from the gut, grouped as yeast/fungal, bacterial and Clostridia-associated markers. Diet (polyphenols, fruit, preservatives) influences several of these and should be considered in interpretation.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
34	**Arabinose**	Yeast / Candida overgrowth	**64.00**	2.21×	▲ H	≤ 29.00
35	**Citramalic acid**	Yeast overgrowth	**13.80**	1.38×	▲ H	≤ 10.00
36	**Tartaric acid**	Yeast overgrowth / dietary	**9.60**	2.13×	▲ H	≤ 4.50
37	**5-Hydroxymethyl-2-furoic acid**	Aspergillus / mould	**6.16**		● N	≤ 14.00
38	**Tricarballylic acid**	Fusarium / mould (mycotoxin)	**0.22**		● N	≤ 0.44
39	**Hippuric acid**	Bacterial polyphenol metabolism	**284.7**		● N	100 – 613.00
40	**Benzoic acid**	Bacterial overgrowth	**0.90**		● N	≤ 3.00
41	**4-Hydroxyhippuric acid**	Bacterial polyphenol metabolism	**7.60**		● N	0.79 – 17.00
42	**DHPPA**	Beneficial-bacteria balance	**0.21**		● N	≤ 0.38
43	**Trimethylamine-N-oxide (TMAO)**	Microbial choline/carnitine metabolism	**1.90**		● N	≤ 5.00
44	**4-Hydroxyphenylacetic acid**	Clostridia (C. difficile)	**31.50**	1.66×	▲ H	≤ 19.00
45	**HPHPA**	Clostridia (C. sporogenes group)	**412.0**	1.98×	▲ H	≤ 208.00
46	**3-Indoleacetic acid**	Clostridia tryptophan fermentation	**6.60**		● N	≤ 11.00
47	**p-Cresyl sulfate**	Clostridia / uraemic toxin load	**118.0**	1.57×	▲ H	≤ 75.00

SECTION 7 — DETOXIFICATION & OXIDATIVE STRESS

Score **6.2** / 9.9 — **MODERATE**

Glutathione status, oxidative and nitrosative damage markers, ammonia handling and markers of common environmental solvent exposure.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
48	**Pyroglutamic acid**	Glutathione recycling demand	**48.50**	1.43×	▲ H	16 – 34
49	**Glutathione reduced (GSH)**	Antioxidant reserve	**0.18**		● N	≤ 0.50
50	**Glutathione disulfide (GSSG)**	Oxidised glutathione load	**0.21**	2.10×	▲ H	≤ 0.10
51	**N-Acetylcysteine (NAC)**	Glutathione precursor availability	**0.09**	0.60×	▼ L	0.15 – 0.28
52	**Orotic acid**	Ammonia / urea cycle load	**0.41**		● N	0.06 – 0.70
53	**Glucaric acid**	Phase II / liver detox demand	**1.92**		● N	0.10 – 4.90
54	**8-Hydroxydeoxyguanosine (8-OHdG)**	Oxidative DNA damage	**2.45**	1.44×	▲ H	≤ 1.70
55	**3-Nitrotyrosine**	Nitrosative stress	**0.33**		● N	≤ 1.00
56	**Mandelic acid**	Styrene exposure / phenylalanine	**1.20**		● N	≤ 2.00
57	**3-/4-Methylhippuric acid**	Xylene exposure	**1.54**		● N	≤ 3.50

SECTION 8 — PROTEIN, MUSCLE & OXALATE

Score **3.0** / 9.9 — **MINIMAL**

Oxalate and its metabolic precursors (kidney-stone risk context) and creatine (muscle turnover).

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
58	**Oxalic acid**	Oxalate load (kidney-stone context)	**78.00**	1.73×	▲ H	≤ 45.00
59	**Glyceric acid**	Oxalate precursor pathway	**3.01**		● N	0.77 – 7.00
60	**Glycolic acid**	Oxalate precursor pathway	**142.0**	1.21×	▲ H	≤ 117.00
61	**Creatine**	Muscle turnover	**1.13**		● N	0.50 – 2.00

SAMPLE REPORT — DUMMY DATA

SECTION 9 — NEUROTRANSMITTER METABOLISM

Score **4.5** / 9.9 — MODERATE

Breakdown products of dopamine, adrenaline/noradrenaline and serotonin, and the kynurenine branch of tryptophan metabolism, which is influenced by inflammation and B6 status.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
62	**Vanilmandelic acid (VMA)**	Adrenaline / noradrenaline turnover	**4.60**	1.24×	▲ H	0.46 – 3.70
63	**Homovanillic acid (HVA)**	Dopamine turnover	**5.40**	1.50×	▲ H	0.80 – 3.60
64	**DOPAC**	Dopamine turnover	**1.69**		● N	0.08 – 3.50
65	**5-Hydroxyindoleacetic acid (5-HIAA)**	Serotonin turnover	**6.54**		● N	3.8 – 12.1
66	**Quinolinic acid**	Inflammatory kynurenine pathway	**6.20**	1.59×	▲ H	0.85 – 3.90
67	**Kynurenic acid**	Protective kynurenine pathway	**1.53**		● N	1.00 – 2.20
68	**Picolinic acid**	Tryptophan pathway; zinc transport	**6.32**		● N	≤ 12.39

SECTION 10 — AMINO ACID SUFFICIENCY

Score **6.4** / 9.9 — MODERATE

Urinary amino acids reflect dietary protein intake, digestion and renal handling. Values below range are suggestive of reduced amino acid availability and are interpreted together with diet and the other sections of this report.

No.	Analyte	What it reflects	Result	× Limit	Flag	Reference
69	**Histidine**	Essential amino acid	**22.00**	0.73×	▼ L	30 – 300
70	**Isoleucine**	Essential amino acid (BCAA)	**0.87**		● N	≤ 2.9
71	**Leucine**	Essential amino acid (BCAA)	**5.05**		● N	3.5 – 7.2
72	**Lysine**	Essential amino acid	**3.60**	0.72×	▼ L	5 – 33.4
73	**Methionine**	Essential amino acid; methylation	**0.72**	0.72×	▼ L	1.0 – 1.7
74	**Phenylalanine**	Essential; catecholamine precursor	**3.90**	0.78×	▼ L	5 – 11.1
75	**Threonine**	Essential amino acid	**14.32**		● N	≤ 43.4
76	**Valine**	Essential amino acid (BCAA)	**4.98**		● N	≤ 8.3
77	**Glycine**	Detox conjugation; collagen	**286.5**		● N	150 – 460.2
78	**Serine**	One-carbon / folate cycle donor	**21.00**	0.70×	▼ L	30 – 74.4
79	**Tyrosine**	Dopamine / thyroid precursor	**6.20**	0.78×	▼ L	8 – 17.5
80	**Arginine**	Nitric oxide / urea cycle	**2.22**		● N	≤ 7.4

ABOUT THIS TEST

Sample & method — First-morning mid-stream urine, LC-MS/MS. Results are normalised to creatinine (mmol/mol creatinine). ▲ H above range, ▼ L below range, ● N within range, ND not detected; × Limit = multiple of the upper (or lower) limit.

Scores & levels — Each section is scored 0–9.9 (Minimal 0–3.5, Moderate 3.6–6.5, High 6.6–9.9), weighting pathway-central markers and agreement between markers. Indicators combine the markers most specific to each nutrient or function. Results outside range in a direction that is not of functional concern (e.g. a high vitamin from supplementation) are flagged but not scored.

Influencing factors — Recent diet (fruit, polyphenols, preservatives, high-protein meals), supplements, medications, fasting, intense exercise, hydration and recent illness can influence urinary metabolites.

Disclaimer

For informational and supportive clinical use only. Interpret with the client's clinical history, symptoms, medications, diet and other investigations. Findings are functional and suggestive of metabolic patterns, not standalone diagnostic evidence of any disease, infection or nutrient deficiency without clinical correlation and confirmatory testing. Any dietary or supplementation decision should be made by the treating physician.

Report Authentication

Prepared by: Ms. Bhavya R, Medical Report Scientist
Reviewed by: Ms. Veena AS, Senior Scientist
Authorised by: Dr. Karthik G, MBBS, MD (Biochemistry), KMC No.: 71789

Electronically authorised report. — End of Report —

SAMPLE REPORT • DUMMY DATA