

Provider: EU BioTek
Patient: Sample report
Accession #:

Sex: M
Age:
Sample Type: Urine Card

Collected:
Received:
Completed:

Analyte	Result ($\mu\text{g}/\text{mg}$ creatinine)	Reference Range	Population Percentile	
Glycolysis				
1. Pyruvate	0.22	< 1.90	12%	
2. Lactate	5.53	< 23.35	28%	
Citric Acid Cycle				
3. Citrate (L)	43.85	71.30 - 772.63	3%	
4. Cis-Aconitate	11.77	< 40.54	9%	
5. Isocitrate (L)	16.80	19.94 - 74.88	4%	
6. Alpha-Ketoglutarate	1.81	< 18.94	22%	
7. Succinate	2.77	< 20.99	13%	
8. Fumarate	0.18	< 1.13	10%	
9. Malate	<LLOQ	< 2.62	N/A	
Fatty Acid Oxidation				
10. Adipate	1.35	< 4.42	32%	
11. Suberate	0.62	< 2.64	23%	
12. Ethylmalonate	1.61	< 3.88	32%	
13. Methylsuccinate	0.65	< 2.20	9%	
Markers for Protein Metabolism				
14. Alpha-Ketoisovalerate	0.28	< 0.49	62%	
15. Alpha-Ketoisocaproate	0.10	< 1.09	11%	
16. Alpha-Keto-Beta-Methylvalerate	0.19	< 1.29	16%	
17. Beta-Hydroxyisovalerate	5.52	< 8.86	63%	
18. Methylmalonate	0.66	< 1.64	19%	
19. Hydroxymethylglutarate	1.29	< 7.20	4%	

Reference range updated 5/21/2021. Reference range is not gender adjusted. Reference range is age adjusted for children. Method: LC/MS/MS. LLOQ: Lower limit of quantitation ULOQ: Upper limit of quantitation. Lactate is reported as D- and L-Lactate combined on OAP. This test is not intended to diagnose, treat, cure, or prevent any disease or replace the medical advice and/or treatment obtained from a qualified healthcare practitioner. US BioTek Laboratories has developed and determined the performance characteristic of this test under the Clinical Laboratory Improvement Amendments (CLIA). This test has not been evaluated by the U.S. Food and Drug Administration. This test does not assess for neonatal inborn errors of metabolism and is based on stable renal function and normal renal clearance.

Provider: EU BioTek
Patient: Sample report
Accession #:

Sex: M
Age:
Sample Type: Urine Card

Collected:
Received:
Completed:

Analyte	Result ($\mu\text{g}/\text{mg}$ creatinine)	Reference Range	Population Percentile	
Ketone Metabolites				
20. Alpha-Hydroxybutyrate	0.38	< 1.24	42%	
21. Beta-Hydroxybutyrate	<LLOQ	< 8.09	N/A	
Markers of Neurotransmitter Metabolism				
22. Vanilmandelate	2.14	< 3.64	37%	
23. Homovanillate	1.84	< 6.66	10%	
24. 5-Hydroxyindoleacetate	2.15	1.17 - 8.06	32%	
25. Quinolinate	2.63	< 5.37	30%	
26. Kynurenate	1.09	< 2.49	23%	
Markers of Detoxification				
27. Para-Hydroxyphenyllactate	0.37	< 1.55	17%	
28. Orotate	0.36	< 1.04	16%	
29. Pyroglutamate	20.26	14.58 - 37.47	31%	
30. Benzoate	<LLOQ	< 6.87	N/A	
31. Hippurate	135.99	17.13 - 768.53	48%	
Markers of Bacterial Metabolism				
32. Para-Hydroxybenzoate	0.70	< 1.43	73%	
33. Para-Hydroxyphenylacetate	6.04	< 26.39	9%	
34. 2-Hydroxyphenylacetate	0.57	< 1.24	23%	
35. 3-Indoleacetate	1.40	0.46 - 9.21	36%	
36. Tricarballoylate	0.07	< 1.06	7%	

Reference range updated 5/21/2021. Reference range is not gender adjusted. Reference range is age adjusted for children. Method: LC/MS/MS. LLOQ: Lower limit of quantitation ULOQ: Upper limit of quantitation. Lactate is reported as D- and L-Lactate combined on OAP. This test is not intended to diagnose, treat, cure, or prevent any disease or replace the medical advice and/or treatment obtained from a qualified healthcare practitioner. US BioTek Laboratories has developed and determined the performance characteristic of this test under the Clinical Laboratory Improvement Amendments (CLIA). This test has not been evaluated by the U.S. Food and Drug Administration. This test does not assess for neonatal inborn errors of metabolism and is based on stable renal function and normal renal clearance.

Provider: EU BioTek
Patient: Sample report
Accession #:

Sex: M
Age:
Sample Type: Urine Card

Collected:
Received:
Completed:

Analyte	Result ($\mu\text{g}/\text{mg}$ creatinine)	Reference Range	Population Percentile	
Xylene Exposure				
1. 3-Methylhippurate	0.03	< 0.18	24%	
2. 2-Methylhippurate	<LLOQ	< 0.06	N/A	
Toluene Exposure				
3. Hippurate	135.99	< 768.53	48%	
4. Benzoate	<LLOQ	< 6.87	N/A	
Benzoate is metabolized to Hippurate. Elevations may cause elevated Hippurate independent of Toluene.				
Benzene Exposure				
5. t,t-Muconic Acid	<LLOQ	< 0.15	N/A	
Trimethylbenzene Exposure				
6. 3,4-Dimethylhippurate	<LLOQ	< 0.01	N/A	
Styrene Exposure				
7. Mandelate	0.17	< 0.34	40%	
8. Phenylglyoxylate	0.10	< 0.30	21%	
9. Mandelate + Phenylglyoxylate	0.27	< 0.61	25%	
Phthalate Exposure				
10. Monoethyl Phthalate	0.02	< 0.10	50%	
11. Phthalate	0.02	< 0.17	7%	
12. Quinolate	2.63	< 5.37	30%	
Paraben Exposure				
13. Para-Hydroxybenzoate	0.70	< 1.43	73%	
Methyl Tert-butyl Ether Exposure				
14. Alpha-Hydroxyisobutyrate	5.64	< 6.35	82%	

Reference range updated 5/21/2021. Reference range is not gender adjusted. Reference range is age adjusted for children. Method: LC/MS/MS. LLOQ: Lower limit of quantitation ULOQ: Upper limit of quantitation. Lactate is reported as D- and L-Lactate combined on OAP. This test is not intended to diagnose, treat, cure, or prevent any disease or replace the medical advice and/or treatment obtained from a qualified healthcare practitioner. US BioTek Laboratories has developed and determined the performance characteristic of this test under the Clinical Laboratory Improvement Amendments (CLIA). This test has not been evaluated by the U.S. Food and Drug Administration. This test does not assess for neonatal inborn errors of metabolism and is based on stable renal function and normal renal clearance.