US BioTek LABORATORIES

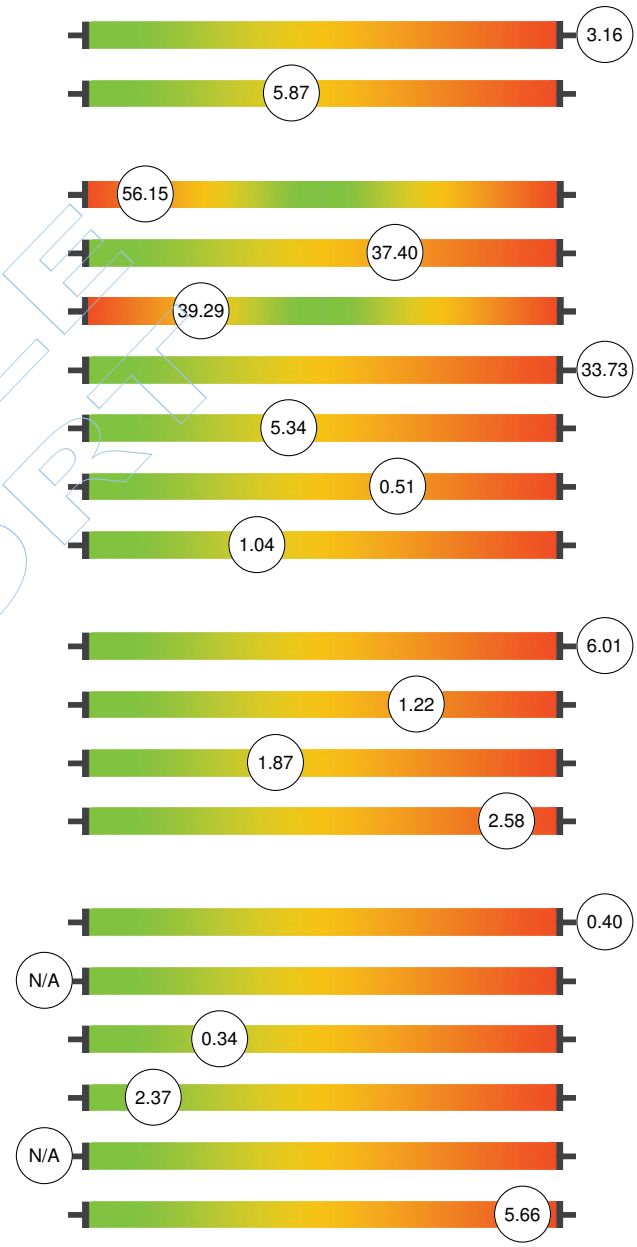
Organic Acids Profile

Provider: sample
Patient: sample
Accession #:

Sex:
Age:
Sample Type: Urine Card

Collected:
Received:
Completed:

Analyte	Result (μg/mg creatinine)	Reference Range	Population Percentile
Glycolysis			
1. Pyruvate (H)	3.16	< 1.90	92%
2. Lactate	5.87	< 23.35	39%
Citric Acid Cycle			
3. Citrate	56.15	71.30 - 772.63	6%
4. Cis-Aconitate	37.40	< 40.54	61%
5. Isocitrate	39.29	19.94 - 74.88	19%
6. Alpha-Ketoglutarate (H)	33.73	< 18.94	93%
7. Succinate	5.34	< 20.99	38%
8. Fumarate	0.51	< 1.13	61%
9. Malate	1.04	< 2.62	31%
Fatty Acid Oxidation			
10. Adipate (H)	6.01	< 4.42	93%
11. Suberate	1.22	< 2.64	66%
12. Ethylmalonate	1.87	< 3.88	35%
13. Methylsuccinate	2.58	< 2.20	85%
Markers for Protein Metabolism			
14. Alpha-Ketoisovalerate (H)	0.40	< 0.49	90%
15. Alpha-Ketoisocaproate	<LLOQ	< 1.09	N/A
16. Alpha-Keto-Beta-Methylvalerate	0.34	< 1.29	23%
17. Beta-Hydroxyisovalerate	2.37	< 8.86	8%
18. Methylmalonate	<LLOQ	< 1.64	N/A
19. Hydroxymethylglutarate	5.66	< 7.20	89%



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.

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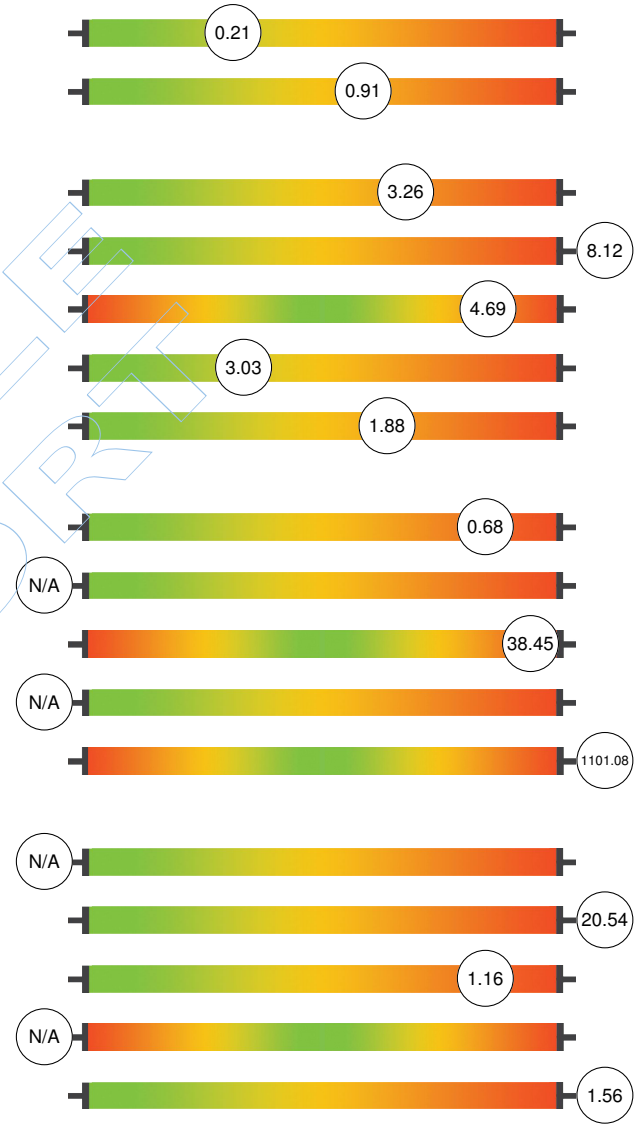
Analyte	Result (μg/mg creatinine)	Reference Range	Population Percentile
Ketone Metabolites			
20. Alpha-Hydroxybutyrate	0.21	< 1.24	25%
21. Beta-Hydroxybutyrate	0.91	< 8.09	54%
Markers of Neurotransmitter Metabolism			
22. Vanilmandelate	3.26	< 3.64	63%
23. Homovanillate (H)	8.12	< 6.66	90%
24. 5-Hydroxyindoleacetate	4.69	1.17 - 8.06	81%
25. Quinolinate	3.03	< 5.37	28%
26. Kynurenate	1.88	< 2.49	59%
Markers of Detoxification			
27. Para-Hydroxyphenyllactate	0.68	< 1.55	81%
28. Orotate	<LLOQ	< 1.04	N/A
29. Pyroglutamate	38.45	14.58 - 37.47	90%
30. Benzoate	<LLOQ	< 6.87	N/A
31. Hippurate (H)	1101.08	17.13 - 768.53	99%
Markers of Bacterial Metabolism			
32. Para-Hydroxybenzoate	<LLOQ	< 1.43	N/A
33. Para-Hydroxyphenylacetate (H)	20.54	< 26.39	90%
34. 2-Hydroxyphenylacetate	1.16	< 1.24	81%
35. 3-Indoleacetate (L)	<LLOQ	0.46 - 9.21	N/A
36. Tricarballylate (H)	1.56	< 1.06	91%



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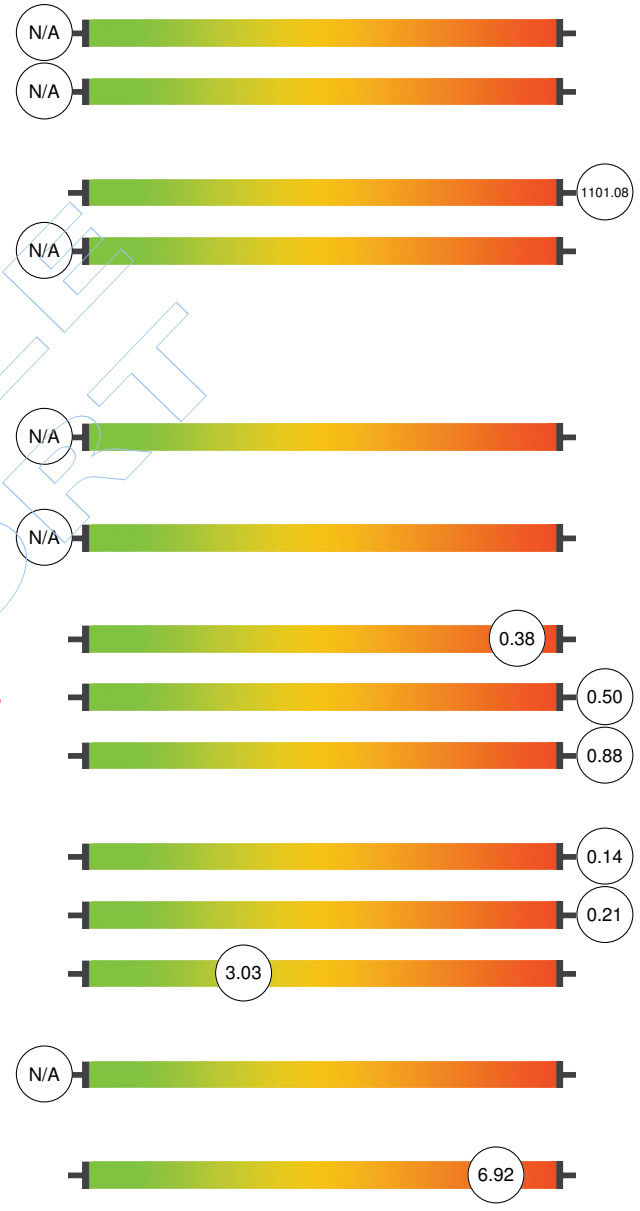
Environmental Pollutants Profile

Provider: sample
Patient: sample
Accession #:

Sex:
Age:
Sample Type: Urine Card

Collected:
Received:
Completed:

Analyte	Result (μg/mg creatinine)	Reference Range	Population Percentile
Xylene Exposure			
1. 3-Methylhippurate	<LLOQ	< 0.18	N/A
2. 2-Methylhippurate	<LLOQ	< 0.06	N/A
Toluene Exposure			
3. Hippurate (H)	1101.08	< 768.53	99%
4. *Benzoate*	<LLOQ	< 6.87	N/A
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	0.38	< 0.34	88%
8. Phenylglyoxylate (H)	0.50	< 0.30	100%
9. Mandelate + Phenylglyoxylate (H)	0.88	< 0.61	98%
Phthalate Exposure			
10. Monoethyl Phthalate (H)	0.14	< 0.10	90%
11. Phthalate (H)	0.21	< 0.17	90%
12. Quinolinate	3.03	< 5.37	28%
Paraben Exposure			
13. Para-Hydroxybenzoate	<LLOQ	< 1.43	N/A
Methyl Tert-butyl Ether Exposure			
14. Alpha-Hydroxyisobutyrate	6.92	< 6.35	83%



Benzoate is metabolized to Hippurate. Elevations may cause elevated Hippurate independent of Toluene.

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Shoreline, WA 98133
www.usbiotek.com

MYCOTOXIN PANEL REPORT FORM
03/06/2023

PATIENT INFORMATION	ORDER INFORMATION	SAMPLE INFORMATION	LAB INFORMATION
Patient:	**Accession No:** KTEST-0306	**Date of Receipt:** 03/06/2023	**Phone:**
Patient Date of Birth:	**Reported On:** 03/06/2023	**Time of Receipt:** 08:25	**Fax:**
Patient Sex:	**Physician:**	**Date of Collection:** 03/6/2023	**Email:**
MRN/Patient ID:	**Practice:**	**Time of Collection:** 00:15	**CLIA #:**
Patient Passport No:	**Address:**	**Specimen Type:** Urine	**CAP #:**
Patient Email:			**Tax ID #:**

Procedure Type: Semi-quantitative procedure by ELISA

List of Mycotoxins tested in the Panel
Ochratoxin A - Procedure by ELISA
Aflatoxin Group: (B1, B2, G1, G2) - Procedure by ELISA
Trichothecene Group (Macrocyclic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucarin A, Verrucarin J, Satratoxin G, Satratoxin H, Isosatratoxin F - Procedure by ELISA
Gliotoxin Derivative - Procedure by ELISA
Zearalenone - Procedure by ELISA

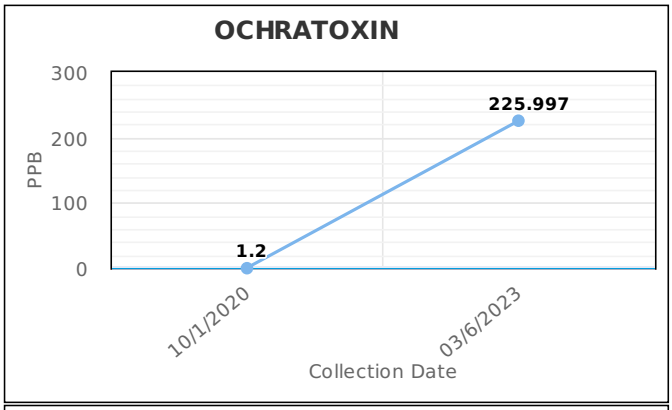
Results:

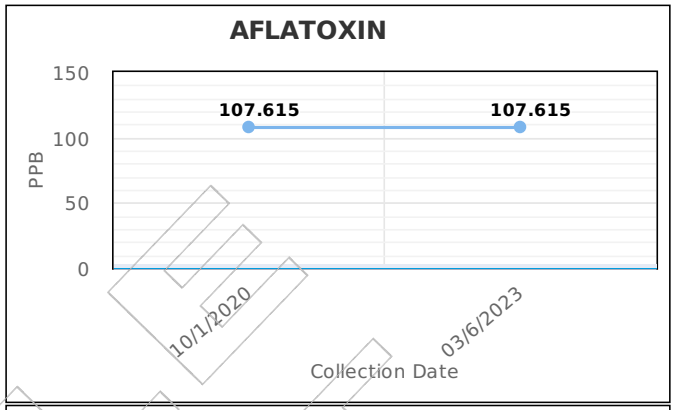
Code	Test	Specimen	Value	Result	Not Present if less than	Equivocal if between	Present if greater or equal
E8501	Ochratoxin A	Urine	>70.0 ppb	Present	1.8 ppb	1.8-2 ppb	2 ppb
E8502	Aflatoxin Group: (B1, B2, G1, G2)	Urine	>56.0 ppb	Present	0.8 ppb	0.8-1 ppb	1 ppb
E8503	Trichothecene Group (Macrocyclic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucarin A, Verrucarin J, Satratoxin G, Satratoxin H, Isosatratoxin F	Urine	2.38600 ppb	Present	0.07 ppb	0.07-0.09 ppb	0.09 ppb
E8510	Gliotoxin Derivative	Urine	>50.0 ppb	Present	0.5 ppb	0.5-1.0 ppb	1 ppb
E8512	Zearalenone	Urine	11.13500 ppb	Present	0.5 ppb	0.5-0.7 ppb	0.7 ppb

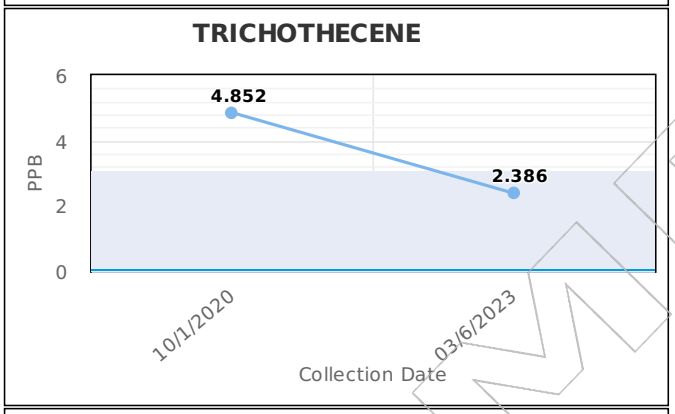
Signature

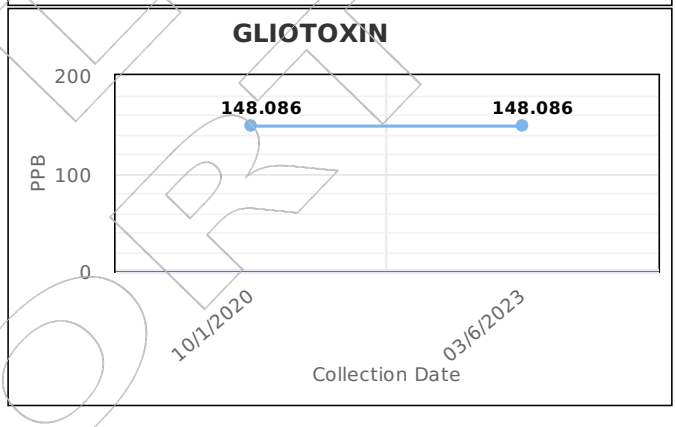
Director or Designee Signature _____

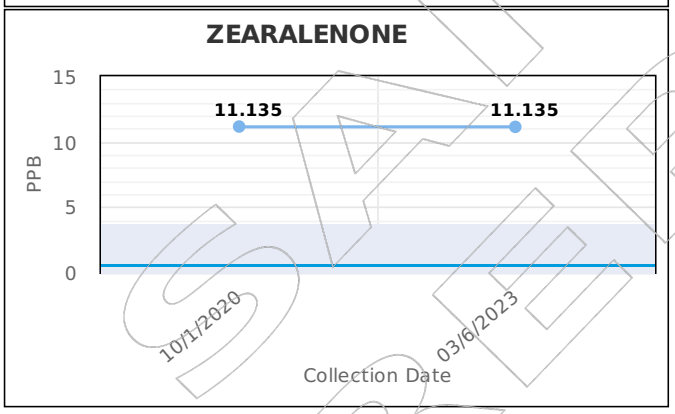
Historical Results:











Results Summary:

Accession No	Collection Date	Ochra Result	Afla Result	Tricho Result	Gliotoxin Result	Zearalenone Result
KTEST-0306	03/6/2023	225.99700 - Present	107.61500 - Present	2.38600 - Present	148.08600 - Present	11.13500 - Present
KT0201-3	02/1/2023					
KTESTZ-1	10/1/2020	1.20000 - Not Present	107.61500 - Present	4.85200 - Present	148.08600 - Present	11.13500 - Present
BETHTEST123	12/5/2017					