



4100 Fairway Drive, Ste 600  
Carrollton, TX 75010  
www.realtimelab.com

## MYCOTOXIN PANEL REPORT FORM

### 05/12/2023

PATIENT INFORMATION	ORDER INFORMATION	SAMPLE INFORMATION	LAB INFORMATION
<b>Patient:</b> Patient Doe <b>Patient Date of Birth:</b> 01/01/2001 <b>Patient Sex:</b> NA <b>MRN/Patient ID:</b> NA <b>Patient Email:</b> NA	<b>Accession No:</b> 050123A <b>Reported On:</b> 05/12/2023 <b>Physician:</b> Doctor Doe <b>Practice:</b> Real Time Laboratories <b>Address:</b> 4100 Fairway Court, Suite 600, Carrollton, TX 75010	<b>Date of Receipt:</b> 05/12/2023 <b>Time of Receipt:</b> 15:12 CDT <b>Date of Collection:</b> 05/1/2023 <b>Time of Collection:</b> 00:00 CDT <b>Specimen Type:</b> Urine	<b>Phone:</b> 1-972-492-0419 <b>Fax:</b> 1-972-243-7759 <b>Email:</b> info@realtimelab.com <b>CLIA #:</b> 45D1051736 <b>CAP #:</b> 7210193 <b>Tax ID #:</b> 0669342

**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	1.03300 ppb	Not Present	1.8 ppb	1.8-2 ppb	2 ppb
E8502	Aflatoxin Group: (B1, B2, G1, G2)	Urine	0.59300 ppb	Not 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	0.11000 ppb	Present	0.07 ppb	0.07-0.09 ppb	0.09 ppb
E8510	Gliotoxin Derivative	Urine	0.55800 ppb	Equivocal	0.5 ppb	0.5-1.0 ppb	1 ppb
E8512	Zearalenone	Urine	0.32600 ppb	Not Present	0.5 ppb	0.5-0.7 ppb	0.7 ppb

Comment: RealTime Lab has validated a new Trichothecene testing procedure. Effective 5/18/2022, all results are reported using the new procedure. Please note the new values for cutoff levels. If you have further questions, please contact our sales team at kits@realtimelab.com.

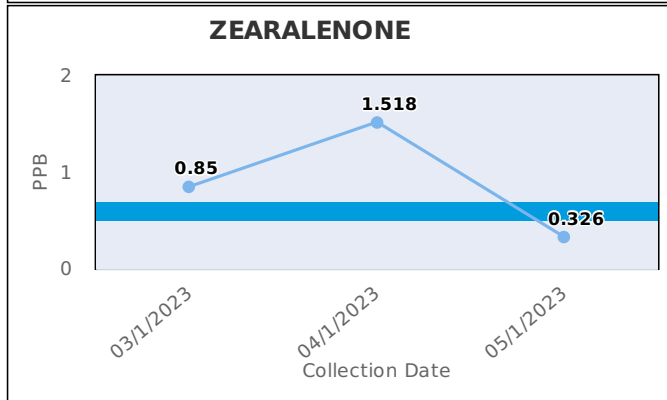
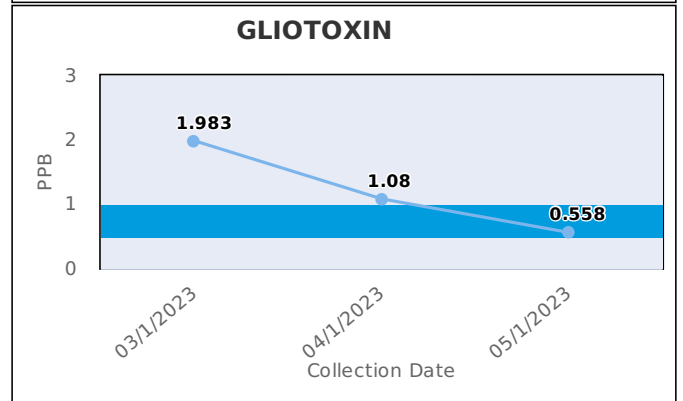
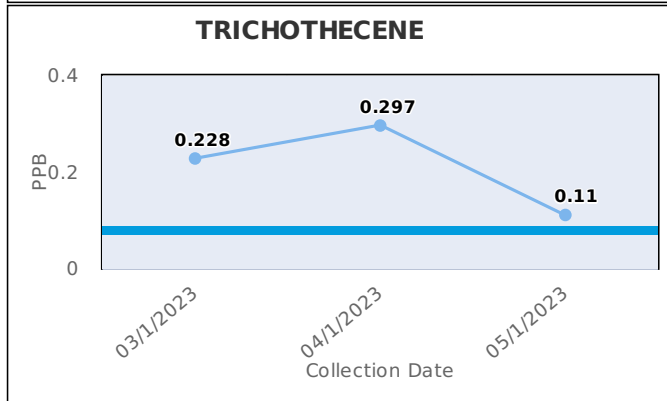
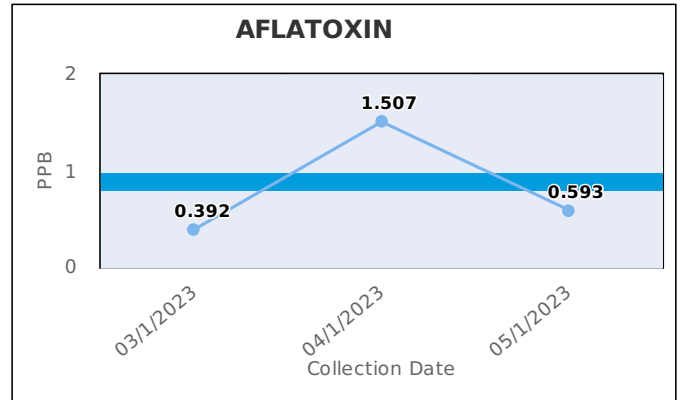
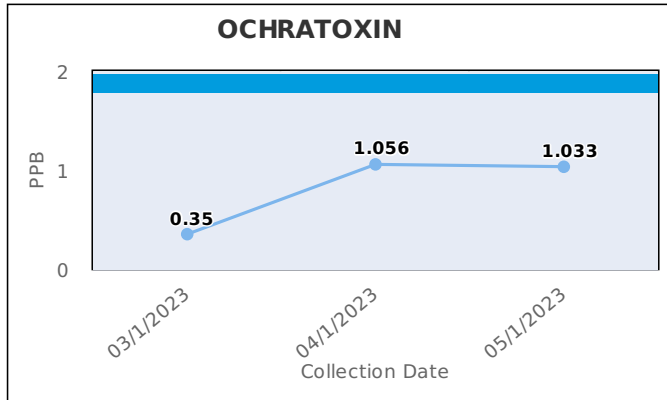
*Director Signature*

Director or Designee Signature \_\_\_\_\_

Tests such as this should be used only in conjunction with other medically established diagnostic elements (e.g., symptoms, history, clinical impressions, results from other tests, etc). Physicians should use all the information available to them to diagnose and determine appropriate treatment for their patients.

Disclaimer: This test was developed and its performance characteristics determined by RealTime Lab. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88) as qualified to perform high complexity clinical laboratory testing.

**Historical Results:**



**Results Summary:**

Accession No	Collection Date	Ochra Result	Afla Result	Tricho Result	Gliotoxin Result	Zearalenone Result
050123A	05/1/2023	1.03300 - Not Present	0.59300 - Not Present	0.11000 - Present	0.55800 - Equivocal	0.32600 - Not Present
040123A	04/1/2023	1.05600 - Not Present	1.50700 - Present	0.29700 - Present	1.08000 - Present	1.51800 - Present
030123A	03/1/2023	0.35000 - Not Present	0.39200 - Not Present	0.22800 - Present	1.98300 - Present	0.85000 - Present

Mycotoxin	Cellular Activity of Mycotoxin	Symptoms/Other	Association with a "Disease State"
<b>A FLA TOXIN FAMILY</b>			
<b>Organisms: <i>Aspergillus flavus</i>, <i>Aspergillus oryzae</i>, <i>Aspergillus fumigatus</i>, <i>Aspergillus parasiticus</i></b> <b>Aflatoxins have been associated with liver cancer [2,3], cirrhosis [4,5], and other health issues</b>			
1	Aflatoxin B1	Binds DNA and proteins [6,7]	Shortness of breath [8], weight loss [10], most potent and highly carcinogenic.
2	Aflatoxin B2	Inhibits DNA and RNA replication [12]	Impaired fetal growth [13,14]
3	Aflatoxin G1	Cytotoxic, induces apoptosis in cells, DNA damage [1]	A flavus is a leading cause of invasive aspergillus in immunocompromised patients [15]
4	Aflatoxin G2	Cancer, neonatal jaundice [2,3,16]	Aflatoxicosis in humans and animals [15]
<b>OCHRATOXIN A</b>			
<b>Organisms: <i>Aspergillus ochraceus</i>, <i>Aspergillus niger</i>, <i>Penicillium species</i></b>			
5	Ochratoxin A	Inhibits mitochondrial ATP, potent teratogen, and immune suppressor [17-19]	Fatigue, dermatitis, irritated bowel [20-22]
<b>MA CROCyclic TRICHOthECENES (Group D)</b>			
<b>Organism: <i>Stachybotrys chartarum</i></b>			
6	Satratoxin G	DNA, RNA, and protein synthesis inhibition [25]	Fatigue [26]
7	Satratoxin H	Inhibits protein synthesis [25]	Fatigue [26]
8	Isosatratoxin F	Immunosuppression [30]	Weakened immune system [30]
9	Roridin A	Immunosuppression [30]	Weakened immune system [30]
10	Roridin E	DNA, RNA, and protein synthesis disruption [25,32]	Weakened immune system [30]
11	Roridin H	Inhibits protein synthesis [25]	Weakened immune system [30]
12	Roridin L-2	Immunosuppression [30]	Weakened immune system [30]
13	Verrucaridin A	Immunosuppression [30]	
14	Verrucaridin J	Immunosuppression [30]	
<b>GLIOTOXIN DERIVATIVE</b>			
<b>Organisms: <i>Aspergillus fumigatus</i>, <i>Aspergillus terreus</i>, <i>Aspergillus niger</i>, <i>Aspergillus flavus</i></b>			
15	Gliotoxin	Attacks intracellular function in immune system [34]	Memory and breathing issues [35,36]
<b>ZEARALENONE</b>			
<b>Organisms: <i>Fusarium species</i></b>			
16	Zearalenone	Estrogen mimic [37,38]	Early puberty, low sperm counts, cancer [39-42]
			Cancer [39,40]

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