

Company:
 Project Name:
 Address:
 E-Mail:

Accession #:
 External ID:
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Collected:
 Received:
 Completed:

FELINE

Procedure Type: Semi-Quantitative ELISA (Enzyme-Linked Immunosorbent Assay)

Code	Test - Pet Urine	Result	Value (ppb)	Reference Range
OCHRA	Ochratoxin A	Present	2.515	<1.8 Not Present 1.8 to <2 Equivocal ≥2 Present
AFLA	Aflatoxin Group: (B1, B2, G1, G2)	Equivocal	0.938	<0.8 Not Present 0.8 to <1 Equivocal ≥1 Present
TRICHO	Trichothecene Group (Macrocyclic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucaridin A, Verrucaridin J, Satratoxin G, Satratoxin H, Isosratoxin F	Present	0.149	<0.07 Not Present 0.07 to <0.09 Equivocal ≥0.09 Present
GLIO	Gliotoxin Derivative	Equivocal	0.901	<0.5 Not Present 0.5 to <1 Equivocal ≥1 Present
ZEA	Zearalenone	Not Present	0.042	<0.5 Not Present 0.5 to <0.7 Equivocal ≥0.7 Present

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Mycotoxin	Cellular Activity of Mycotoxin		Symptoms/Other	Association with a "Disease State"
AFLATOXIN FAMILY				
Organisms: <i>Aspergillus flavus</i> , <i>Aspergillus oryzae</i> , <i>Aspergillus fumigatus</i> , <i>Aspergillus parasiticus</i> Aflatoxins have been associated with liver cancer [2,3], cirrhosis [4,5], and other health issues				
1	Aflatoxin B1	Binds DNA and proteins [6,7]	Shortness of breath [8], weight loss [10], most potent and highly carcinogenic.	Primarily attacks the liver, other organs include kidneys and lungs [11]
2	Aflatoxin B2	Inhibits DNA and RNA replication [12]	Impaired fetal growth [13,14]	Affects the liver and kidneys [11]
3	Aflatoxin G1	Cytotoxic, induces apoptosis in cells, DNA damage [1]	A flavus is a leading cause of invasive aspergillus in immunocompromised patients [15]	Cancer, neonatal jaundice [2,3,16]
4	Aflatoxin G2	Cancer, neonatal jaundice [2,3,16]	Aflatoxicosis in humans and animals [15]	Malnutrition, lung cancer [2,3,16]
OCHRATOXIN A				
Organisms: <i>Aspergillus ochraceus</i> , <i>Aspergillus niger</i> , <i>Penicillium species</i>				
5	Ochratoxin A	Inhibits mitochondrial ATP, potent teratogen, and immune suppressor [17-19]	Fatigue, dermatitis, irritated bowel [20-22]	Kidney disease and cancer [23,24]
MA CROCYCLIC TRICHOETECENES (Group D) Organism: <i>Stachybotrys chartarum</i>				
6	Satratoxin G	DNA, RNA, and protein synthesis inhibition [25]	Fatigue [26]	Bleeding disorders, nervous system disorders [27,28]
7	Satratoxin H	Inhibits protein synthesis [25]	Fatigue [26]	Breathing issues [29]
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]	Lung and nasal olfactory problems [31]
11	Roridin H	Inhibits protein synthesis [25]	Weakened immune system [30]	
12	Roridin L-2	Immunosuppression [30]	Weakened immune system [30]	
13	Verrucaric A	Immunosuppression [30]		
14	Verrucaric J	Immunosuppression [30]		
GLIOTOXIN DERIVATIVE				
Organisms: <i>Aspergillus fumigatus</i> , <i>Aspergillus terreus</i> , <i>Aspergillus niger</i> , <i>Aspergillus flavus</i>				
15	Gliotoxin	Attacks intracellular function in immune system [34]	Memory and breathing issues [35,36]	Immune dysfunction disorders [34]
ZEAREALONE				
Organisms: <i>Fusarium species</i>				
16	Zearealenone	Estrogen mimic [37,38]	Early puberty, low sperm counts, cancer [39-42]	Cancer [39,40]

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Collected: 09/07/2025
Received: 09/12/2025
Completed: 09/17/2025

Dust

Procedure Type: Quantitative PCR (Polymerase Chain Reaction)

Code	Test - Cotton Swab	Value (Fungal Elements / ML)
AALT	<i>Alternaria alternata</i>	0
AFLAV	<i>Aspergillus flavus</i>	0
AFUMI	<i>Aspergillus fumigatus</i>	0
ANIG	<i>Aspergillus niger</i>	5,740
AOCHR	<i>Aspergillus ochraceus</i>	0
APENI	<i>Aspergillus penicillioides</i>	121
ASP25	<i>Aspergillus terreus</i>	0
AVERS	<i>Aspergillus versicolor</i>	0
CAU	<i>Candida auris</i>	0
CGLOB	<i>Chaetomium globosum</i>	202
FUS14	<i>Fusarium solani</i>	0
PBREV	<i>Penicillium brevicompactum</i>	0
PCHRY	<i>Penicillium chrysogenum</i>	265,219
STAC	<i>Stachybotrys chartarum</i>	0
WSEBI	<i>Wallemia sebi</i>	3,267

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MOLD	MYCOTOXIN PRODUCED	POTENTIAL HEALTH ISSUES
<i>Alternaria alternata</i>	Alternariol	Spores can be found in damp, poorly ventilated homes, contributing to sick building syndrome [1]. Alternariol has been reported to be mutagenic [2].
<i>Aspergillus flavus</i>	Gliotoxin, Aflatoxin	<i>A. flavus</i> is the second leading cause of invasive aspergillosis in immunocompromised patients. Particularly common clinical syndromes associated with <i>A. flavus</i> include: chronic granulomatous sinusitis, keratitis, cutaneous aspergillosis, wound infections and osteomyelitis following trauma and inoculation [3, 4]. Can cause liver cancer in humans [5].
<i>Aspergillus fumigatus</i>	Gliotoxin, Aflatoxin	<i>A. fumigatus</i> is frequently found in homes and buildings [1]. It is considered to be an opportunistic pathogen, meaning it rarely infects healthy individuals, but is the leading cause of invasive aspergillosis (IA) in immunocompromised individuals such as cancer, HIV or transplant patients [2].
<i>Aspergillus niger</i>	Ochratoxin, Gliotoxin	<i>A. niger</i> produces gliotoxin, which has been identified in the sera of humans and mice with aspergillosis. Causes immunosuppression in patients [8].
<i>Aspergillus ochraceus</i>	Ochratoxin	Ochratoxin has been demonstrated to be Nephrotoxic, Hepatotoxic, and Carcinogenic and is a potent teratogen and immune-suppressant [8]. It has also been associated with urinary tract infections and bladder cancer [9].
<i>Aspergillus penicillioides</i>	Unknown	<i>A. penicillioides</i> is commonly found indoors [10]. Infection has been confirmed in pulmonary aspergillosis [11] and fungal aneurysm [12].
<i>Aspergillus terreus</i>	Gliotoxin, Citirin	Inhalation of fungal spores, which travel down along the respiratory tract, cause the typical respiratory infection [6].
<i>Aspergillus versicolor</i>	Sterigmatocystin	<i>A. versicolor</i> is one of the most frequently found molds in water-damaged buildings. <i>A. versicolor</i> is known to produce a mycotoxin called sterigmatocystin a potentially carcinogenic and hepatotoxic mycotoxin. It is primarily toxic to the liver and kidneys [7].
<i>Candida auris</i>	Unknown	<i>C. auris</i> can be found in healthcare facilities and can be spread through contact with infected patients and equipment. <i>C. auris</i> can cause blood stream infections, wound infections and ear infections [13].
<i>Chaetomium globosum</i>	Chaetoglobosins	<i>C. globosum</i> is a common indoor fungal contaminant of water damaged homes or buildings. Like <i>Stachybotrys</i> , <i>C. globosum</i> spores are relatively large and due to their mode of release are not as easily airborne as are some other molds [11].
<i>Fusarium species</i>	Fumonisin; Zearalenone	<i>Fusarium</i> can cause superficial infections such as keratitis or onychomycosis in healthy individuals and disseminated infections in immunocompromised patients [12].
<i>Penicillium brevicompactum</i>	Ochratoxin A	Producer of the toxin Ochratoxin A. Fungal particles depend on the relative humidity [14]. Can lead to chronic Rhinosinusitis if breathed in high concentrations [15].
<i>Penicillium chrysogenum</i>	Ochratoxin A	Producer of the toxin Ochratoxin A. Fungal particles depend on the relative humidity [14]. Can lead to chronic Rhinosinusitis if breathed in high concentrations [16]. High levels are correlated with the development of sick building syndrome [17].
<i>Stachybotrys chartarum</i>	Macrocytic Trichothecenes	<i>S. chartarum</i> , commonly known as black mold, is highly toxic to humans. Nausea, vomiting, diarrhea, burning erythema, ataxia, chills, fever, hypotension, hair loss and confusion are symptoms in individuals living or working inside <i>Stachybotrys</i> infested homes and buildings [10].
<i>Wallemia sebi</i>	Wallemiol	Spores from <i>Wallemia</i> are significant allergens. Inhalation exposure of spores can lead to conditions such as asthma, hypersensitivity, or pulmonary fibrosis [23].

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