

## MOLD TOX

is for Clinically Significant Mold and Mycotoxins

**Keeping your family free from toxic mold and mycotoxins**



### ALL HOMES AND BUILDINGS CONTAIN MOLD

The question that every home owner should ask before undertaking expensive remediation is, "What mold do I have?" Most molds are harmless in the normal quantities found in homes unless individuals happen to be allergic to them. There are, however, a small number of toxigenic molds that they should be concerned about. These toxigenic molds produce Mycotoxins that are known to be harmful to humans and can cause a variety of medical conditions, including cancer.

The MOLD TOX test uses sensitive molecular detection technology to look for the presence of 10 of the most toxigenic molds. It determines their presence and determines their relative abundance. MOLD TOX also tests directly for 15 of the most poisonous Mycotoxins using its patented Mycotoxin detection test.

The organisms, mycotoxins produced and potential health concerns are shown in the table:

MOLD	MYCOTOXIN PRODUCED	POTENTIAL HEALTH ISSUES
Aspergillus fumigatus	Gliotoxin	Immunosuppressant
Aspergillus flavus	Aflatoxin	Can cause liver cancer in humans
Aspergillus niger	Ochratoxin	Suspected carcinogen
Aspergillus versicolor	Sterigmatocystin	Carcinogenic
Aspergillus ochraceus	Ochratoxin	Suspected carcinogen
Penicillium brevicompactum	Mycophenolic acid	Immunosuppressant
Stachybotrys chartarum	Macrocytic Trichothecenes	Highly toxic to humans
Chaetomium globosum	Chaetoglobosins	Toxic to mammalian cells
Mucor	Potential Pathogen	Can cause Mucormycosis
Rhizopus		Can cause Mucormycosis

#### To detect 10 of the most toxic molds and 700 + mycotoxins.

This test includes the top 10 most relevant mold species detected using the MSQPCR method, with a HERTSMI-2 Score included in the report.

To this, we add the detection of 700+ mycotoxins ( see listed mycotoxins by clicking on the Appendix below ) analyzed by state of the art technologies ( LC/MS/MS )

The MOLD-TOX combined test is superior to offerings from other labs due to the broad range of mycotoxins detected and the lower limit of detection – this specificity and sensitivity offered by EnviroBiomics is unrivaled by that offered by any other laboratory.

# MOLD TOX

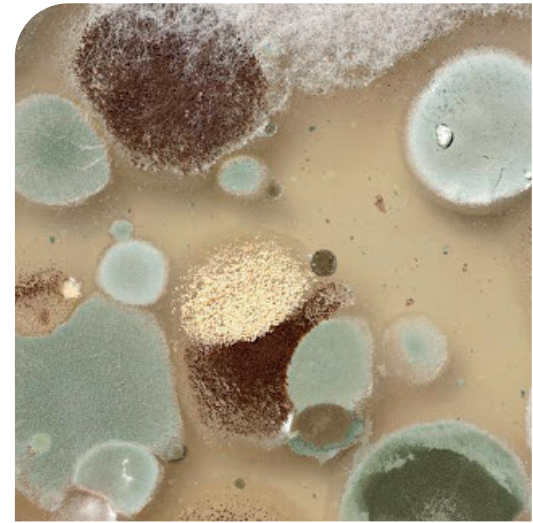
## Explanation Guide



### Read what the experts have to say

In order to help you understand the results of your MOLD TOX test, information on organisms and/or mycotoxins found are described below along with links to reference sources.

ORGANISM	MYCOTOXIN
<i>Aspergillus fumigatus</i>	Gliotoxin
<i>Aspergillus flavus</i>	Aflatoxin
<i>Aspergillus niger</i>	Ochratoxin
<i>Aspergillus versicolor</i>	Sterigmatocystin
<i>Aspergillus ochraceus</i>	Ochratoxin
<i>Penicillium brevicompactum</i>	Mycophenolic acid
<i>Stachybotrys chartarum</i>	Macrocyclic Trichothecenes
<i>Chaetomium globosum</i>	Chaetoglobosins
<i>Wallemia sebi</i>	Walleminol A
<i>Aspergillus penicilloides</i>	None Known



Note: Spore counts from *A. versicolor*, *S. chartarum*, *C. globosum*, *Wallemia sebi* and *A. penicilloides* can be used to calculate the HERTSMI-2 score (<http://www.survivingmold.com/diagnosis/herts-mi-2>)

**Mycotoxins:** World Health Organization (WHO) in its publication: *Mycotoxins: Children’s Health and the Environment* defines mycotoxins as “Natural products produced by fungi that evoke a toxic response when introduced in low concentrations to higher vertebrates by a natural route.” Note: There is no definition of what “low concentration” means. Also, humans are “higher vertebrates” and inhalation is a “natural route” <http://www.who.int/ceh/capacity/mycotoxins.pdf>

**Aflatoxins:** NIH, National Cancer Institute web site: “Which cancers are associated with exposure to aflatoxins? Exposure to aflatoxins is associated with an increased risk of liver cancer.” <https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/aflatoxins>

**Ochratoxins:** U.S. Department of Health and Human Services 14th Report on Carcinogens (RoC) lists Aflatoxin as “Known to be a Human Carcinogen” and Ochratoxin A as “Reasonably anticipated to be Human Carcinogen”. [https://ntp.niehs.nih.gov/ntp/roc/content/listed\\_substances\\_508.pdf](https://ntp.niehs.nih.gov/ntp/roc/content/listed_substances_508.pdf)

**Gliotoxin:** Gliotoxin is an immunosuppressive mycotoxin long suspected to be a potential virulence factor of *Aspergillus fumigatus*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2043361/>

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**Trichothecenes:** CDC Centers for Disease Control and Prevention. Case Definition: Trichothecene Mycotoxin states: “The trichothecene mycotoxins are a group of toxins produced by multiple genera of fungi.” They later state: “Systemic symptoms can develop with all routes of exposure (especially inhalation) and might include weakness, ataxia, hypotension, coagulopathy and death.” <https://emergency.cdc.gov/agent/trichothecene/-casedef.asp>

**Sterigmatocystin:** Sterigmatocystin is carcinogenic in mice (pulmonary adenocarcinomas) and rats (hepatocellular carcinomas at milligram doses of sterigmatocystin per animal per day for 1 year) following oral administration and is classified as an International Agency for Research on Cancer class 2B carcinogen (i.e., as possibly carcinogenic to humans) <http://aem.asm.org/content/68/8/3886.full>

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**Mycophenolic Acid:** Mycophenolic Acid: Use during pregnancy is associated with increased risks of pregnancy loss and congenital malformations. Females of reproductive potential must be counseled regarding pregnancy prevention and planning. Increased risk of development of lymphoma and other malignancies, particularly of the skin, due to immunosuppression. Increased susceptibility to bacterial, viral, fungal, and protozoal infections, including opportunistic infections. [https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045948/#-DIC603035.side\\_effects\\_section](https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045948/#-DIC603035.side_effects_section)

**Chaetoglobosins:** Chaetomium globosum, the most common species within this genus, produces chaetoglobosins A and C when cultured on building material. Relatively low levels of these compounds have been shown to be lethal to various tissue culture cell lines. <https://www.ncbi.nlm.nih.gov/pubmed/17551849>

Swiffer Kit		
1 Days	3 Days	7 Days
\$467.00	\$406.00	\$385.00

Vacumm Kit		
1 Days	3 Days	7 Days
\$482.00	\$421.00	\$400.00