

WARNING!



ABOUT DO-IT-YOURSELF (DIY) TEST KITS

Our goal is to provide accurate, timely, and legally defensible data while maintaining the highest level of customer service and technical support to our customers.

Report By:

TOXIC MOLD LAB
TOLL FREE 1-866-497-9977

DON'T PAY FOR WHAT YOU ALREADY KNOW

BEWARE! The following laboratories sell Mold Test Kits that tell you NO USEFUL INFORMATION concerning air quality in your home. These kits are not based on Air Quality Science. *IMS Laboratory, Pro-Lab, Start-Remodeling, Jon Don.*

WHAT ARE DIY KITS?

Kits using fungal growth medium are widely marketed as "mold test kits" for those who choose to do-it-yourself. Are the results meaningful? You may be surprised...

OVERVIEW

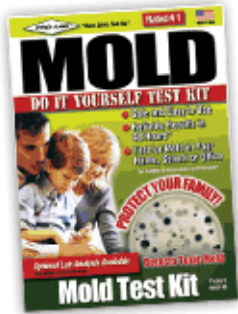
Typically these kits include a Petri dish or other container that holds a growth medium (generally a type of agar used for culturing a specimen). Read more on Cultures.

The objective is to expose this medium to viable spores which then grow to form colonies. Some kits include, or have an optional laboratory analysis at your disposal.

Suggestions for use vary but we will discuss a few of the common applications.

SETTLE PLATE APPLICATION

Open the dish and set it on a surface such as a table and airborne spores will "settle out" on the plate. (This type of test implies it will indicate if mold spores are in your air.)



What's wrong with this test? (Hint: Most all air on our planet has mold spores in it so their should be spores in your air!)

After exposing the plate, you will probably see colonies form after 24-48 hours. Can you then identify the type of mold? Probably not. It takes a considerable amount of knowledge and training to identify molds macroscopically, and even then, most microbiologists will hedge their bets until they can look at it under the microscope.

Some may try to quantify the results (i.e. 6 colonies grew); however, such results are practically meaningless. Why? First of all, not all spores in the air are viable (capable of growing a colony) or compatible with the media. Secondly, spores vary in size, shape and weight. Some settle faster than others. Third, did those spores originate from one of Mother Nature's outdoor colonies or from an inappropriate indoor colony?

If a gazillion colonies grow, it may indicate there is an indoor problem, however, if the outdoor air that day has 100 gazillion spores, maybe not.

Professionals typically use a special volumetric air impactor that draws a measured volume of air over the plate, and is designed to impact spores into the medium in a predictable manner. While drastically more accurate than settle plates, this type of test is still subject to the limitations of air testing and culturing.

Tip: From a practical point of view, the settle plate test simply confirms there are mold spores in the air (they really are there...normally). A similar test can be performed by setting out some used, moist coffee grounds and watch as the mold colonies form after a few days (or look in Uncle George's not-so-clean refrigerator).

AIR CONDITIONING TEST APPLICATION

Tape or secure the petri dish to a supply vent on your air conditioning system. (This type of test implies you will learn if mold is growing in your HVAC system.)

What's wrong with this test? (Hint: Same hint as above)

Your HVAC system circulates air and spores are most likely in this air. Unless you have advanced filtering (i.e. HEPA-rated), you should expect to have mold spores being circulated as well. Even with advanced filtering, most HVAC systems suffer from filter bypass problems, cabinet and duct leakage, etc.



From a practical perspective, the growth of colonies resulting from this test means the HVAC system is moving air, just like its supposed to be doing. Like the settle plate test, if a gazillion colonies form, you may have an HVAC problem, but then again, maybe not.

There are certain locations within an HVAC system where mold growth can be a problem. Remember, it takes food and moisture for growth so those are the areas to focus on. Mold won't arbitrarily grow in your ductwork unless there is a significant problem.

Tip: Have the HVAC system inspected by someone who knows where the problem areas are located.



VISIBLE MOLD OR SURFACE TEST APPLICATION

Using a swab, transfer some mold from a visible colony to the petri dish, or swab a suspect surface for mold spores.

Using growth media for source testing (visible mold) or surface testing for invisible spores are probably the best uses for these types of kits compared to air testing. However, they are typically not the most practical method for general fungal identification compared to tape-lifts and swabs.

The probability of you experiencing false negative and false positive results is very high due to the inherent limitations of culturing biological specimens.

Most professionals limit the use of culture testing to applications where identifying the organism to a species-level is desired. In this case, the genus (type) of mold is known or suspected, and the proper media is selected based on providing optimum growth for that particular organism. Since optimum growth is dependant on a number of factors including temperature and time, specimens are often packed in temperature-controlled containers and expedited to the lab for incubation.

Tip: If you are going to do-it-yourself and want to know "what kind of mold is it?", consider sending a tape-lift, swab, or bulk specimen to a lab for general fungal ID. If you need to know what species it is, talk with the lab about proper media, specimen collection, and handling procedures.

SUMMARY

TEST KITS WITH PETRI DISHES DO GROW MOLD BUT THE INFORMATION HAS LIMITED PRACTICAL APPLICATION.

All tests are subject to limitations; however, the variables added when attempting to culture an organism can dramatically increase false negative and false positive results.

Knowing what information you get and what you are missing is a very important part of the testing process. Don't let bad information cause bad decisions.

Unless you want to grow mold for a science project, consider other types of testing to minimize false results. In all cases, understand the risks when testing or handling fungal organisms.

If you are unsure, or need more information, consider hiring a professional.

TOXIC MOLD LAB
TOLL FREE 1-866-497-9977

