



#### **BENEFITS OF MOLECULAR DETECTION**

- ✓ Quick & painless sample collection
- ✓ >95% Accuracy
- ✓ High sensitivity (>95%) and specificity (>99%)
- ✓ Results in just 24-48 hours
- ✓ Enables physicians to accurately diagnose & treat patients sooner

#### **PATIENT BENEFIT**

##### **Fast & Accurate Pathogen Identification**

Patients will appreciate that a single wound sample can be processed quickly to identify a variety of fungal/bacterial infection sources, including antibiotic-resistant strains. Physicians can receive results in as little as 24-48 hours, allowing them to diagnose and treat their patients sooner.

#### **WHAT IS COVERED?**

In most cases, insurance plans cover the cost of genetic testing when recommended by a person's doctor for medically necessary diagnosis and treatment.

## Diagnose and Treat Your Patients Sooner

Quantitative PCR allows physicians to quickly identify the source of an infection at the molecular level. This highly sensitive and specific diagnostic testing method is greater than 95% accurate in identifying a variety of fungal infection sources from a single patient sample. Molecular analyses can be completed in as little as 24-48 hours, which enables physicians to better diagnose and treat their patients more effectively.

## Accurate Molecular Detection

### **MOLECULAR DETECTION OF FUNGAL DNA BY qPCR**

Molecular detection methods, including quantitative polymerase chain reaction (qPCR), have created a paradigm shift in diagnostic testing. qPCR offers promising advantages over the time and resources required for conventional fungal detection methods. These modern tools can accurately identify pathogenic fungal or bacterial infection sources, including antibiotic resistance markers, (1-2 days) as compared with common culture methods (>2 weeks). Molecular identification of fungi allows for a more in-depth and sensitive examination of etiological agents, allowing physicians to personalize treatments, diagnose, and develop treatment plans much sooner, thereby improving patient care.



# Nail Fungus Panel

MOLECULAR (DNA) BASED DETECTION



NATIVE LAB  
SERVICES

## NAIL FUNGUS PANEL

- Acremonium strictum
- Aspergillus fumigatus
- Aspergillus niger
- Aspergillus terreus
- Aspergillus versicolor
- Candida albicans
- Candida krusei
- Candida glabrata
- Candida tropicalis
- Epidermophyton floccosum
- Microsporum audouinii
- Microsporum gypseum
- Microsporum nanum
- Sarcoptes scabiei
- Scopulariopsis brevicaulis
- Trichophyton interdigitale (T. mentagrophytes)
- Trichophyton rubrum
- Trichophyton soudanense
- Trichophyton tonsurans
- Trichophyton violaceum
- Trichosporon beigelii
- Trichosporon mucoides

## Nail Fungal Disorders

### THE NEED FOR PROPER FUNGAL DETECTION

Toenail and fingernail disorders are a significant widespread problem and can be resistant to specific therapies. These fungal disorders cause discomfort and disfigurement and may even produce physical limitations. Treatments take time, have potential side effects, and can be costly for patients. The availability of suitable diagnostic methods is critical for rapid and precise identification of fungi involved in nail disorders, to administer proper treatments and preventive measures.



Your lab can quickly identify over 20 different nail fungus species.

## Analytical Methods Comparison

### Rapid Fungal

- |                |   |
|----------------|---|
| ✓ Quick Result | ✗ Lack specificity                                    |
| ✓ Low Cost     | ✗ No information on resistance or virulence           |
| ✓ Ease of Use  | ✗ Speciation is difficult and potentially confounding |

### Molecular (DNA) Based Diagnosis

- |  |  |
|--|--|
| ✓ Quick Result, 24-48 hours  | ✗ Gene fragments and transposons limit the ability to determine actual resistance, and instead only offer "potential" resistance |
| ✓ >95% Accuracy  |  |
| ✓ >95% Sensitivity   |  |
| ✓ >99% Specificity   | ✗ Resistance genes highly variable – some bacteria may be resistant and missed due to gene variability                           |
| ✓ Ease of use (automated opportunities)  |  |
| ✓ Speciation easily identified   | ✗ Resistance profiles are representative of the entire biofilm, not necessarily species-specific.                                |
| ✓ Can detect numerous individual entities in a biofilm without loss to culture |  |