

EUROBIOPLEX PRODUCTS

DermaScreen

Relevant detection  
of dermatophytes

| Reference                    | Designation             | Format               |
|------------------------------|-------------------------|----------------------|
| EBX-073                      | EurobioPlex DermaScreen | 50 / 100 / 200 tests |
| Other EurobioPlex References |                         |                      |
| EBE-077                      | EurobioPlex DermaXtract | 50 / 100 / 200 tests |

1) Alex E. Moskaluk and Sue VandeWoude (2022) «Review - Current Topics in Dermatophyte Classification and Clinical Diagnosis», Pathogens 2022, 11, 957. <https://doi.org/10.3390/pathogens11090957>;

2) Sarah E. Kidd and Gerhard F. Weldhagen (2022) «Diagnosis of dermatophytes: from microscopy to direct PCR», Microbiology Australia 43(1), 9-13. doi:10.1071/MA22005;

3) Chris G. Adigun (2022) «Onychomycosis», MSD Manual, <https://www.msdmanuals.com/home/skin-disorders/nail-disorders/onychomycosis>;

4) Nenoff P et al. S1-Leitlinie Onychomykose (AWMF-Register-Nr. 013-003) (2022) verfügbar unter: <https://www.awmf.org/leitlinien/detail/II/013-003.html>;

5) Hayette et al. (2018), «Clinical evaluation of the DermaGenius® Nail real-time PCR assay for the detection of dermatophytes and Candida albicans in nails», Medical Mycology.; 277-283;

6) Trovato et al. (2019) «Molecular diagnosis of kerion celsi caused by Trichophyton tonsurans in a Italian child», Med Mycol Case Rep.; 24: 72-74;

7) Carolin Mehlhorn et al. (2024) «Konventionelle und molekulare Diagnostik bei Onychomykose - Teil 1», Dermatologie 75, 134-146. <https://doi.org/10.1007/s00105-023-05260-0>

8) E. Aho-Laukkanen et al. (2024) «PCR enables rapid detection of dermatophytes in practice» Microbiology Spectrum (Open Peer Review 2024)

9) For more information, please refer to the technical sheet

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**Eurobio Scientific**  
This medical device for in vitro diagnosis is a regulated health product and thus bears the CE mark.  
This class C medical device for in vitro diagnosis is a regulated health product that bears the CE mark.  
  
Carefully read the instructions for use.  
For healthcare professionals

FLEBS16-0125-EN



**Real Time PCR**  
Easy interpretation



**Complete**  
Positive, negative  
and internal controls



**Effective**  
Fast extraction



Background

Dermatophytes are filamentous fungi invading and degrading keratinized tissues as hair, skin and nails causing inflammation as the host responds to metabolic byproducts<sup>1,2</sup>. Nails are the most common clinical samples send to the laboratories (80-90%). The dermatophyte infection of the finger and especially the toenail (Onychomycosis) shows a prevalence of

approximately 10% in the general population and is of great importance: Onychomycosis is most prevalent among older people (up to 50% in those >70 years) particularly men, and people with poor circulation in the feet (peripheral arterial disease), diabetes, a weakened immune system (caused by a disorder or drug), athlete's foot, or nail dystrophies<sup>3</sup>.

The most common pathogens of onychomycosis are *Trichophyton rubrum* (*T.rubrum*; up to 80%) and *Trichophyton interdigitale* (*T.interdigitale*; up to 16%)<sup>4</sup>. *Epidermophyton floccosum*, *Microsporum canis*, *Nannizia gypsea*, *Trichophyton tonsurans* and *Trichophyton soudanense* are described as (very) rare pathogens<sup>4</sup>.

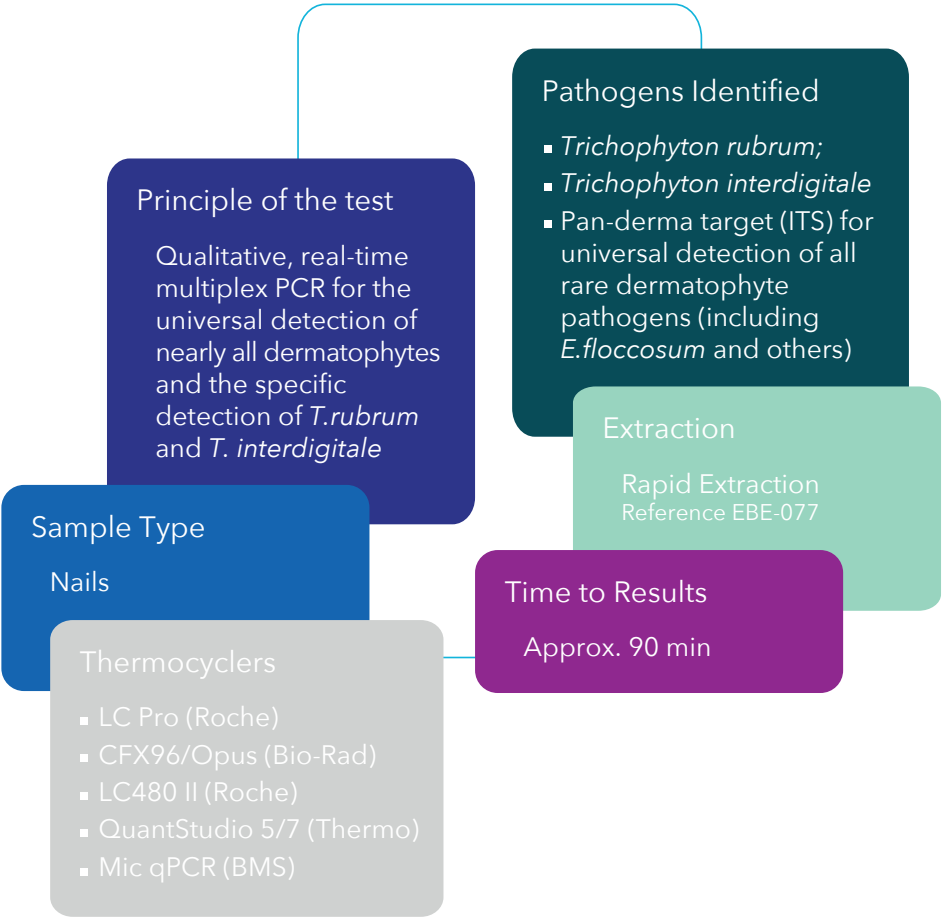


Diagnosis

Diagnosis of these infections is currently based on microscopy or histology associated with culture on specific agar media. However, direct microscopy lacks specificity and culturing has a long

turn-around-time of 2-4 weeks and is prone to contamination. These limitations can be prevented by the use of molecular diagnostics<sup>5,6,7</sup>. Molecular tests also show a better sensitivity compared to culture<sup>8</sup>.

Characteristics<sup>9</sup>



Performances<sup>9</sup>

|                                    |                                                                              |
|------------------------------------|------------------------------------------------------------------------------|
| Analytical Sensitivity (on CFX 96) | <i>T.rubrum</i> : 0,97 copies / µl<br><i>T.interdigitale</i> : 1 copies / µl |
| Clinical Sensitivity               | <i>T.rubrum</i> : 99 %<br><i>T.interdigitale</i> : 96 %                      |
| Clinical Specificity               | <i>T.rubrum</i> : 91 %<br><i>T.interdigitale</i> : 91 %                      |

Eurobio Scientific is a long term partner of the medical industry.

EBS offers innovative products and services adapted to the needs of medical analysis and research laboratories.

Its main commitment lies in the desire to provide its customers with innovative and quality solutions combined with high-level services.

EBS develops and produces one-step Real Time qPCR kits for human infectious diseases.