



"Ready & Easy-to-use" kits.  
Lyophilised product



Transport and storage at room temperature.  
Shelf-life: 24 months



Validated according to ISO 13485  
and CE marked

## *Aspergillus* differentiation

- ▶ The genus *Aspergillus* encompasses more than 250 species based on morphology and is one of the largest genera of filamentous fungi causing human diseases. ***Aspergillus* species cause a wide spectrum of diseases in humans.** *Aspergillus* has emerged as one of the most common causes of infectious death in severely immunocompromised patients, with mortality rates up to 40%-50% in patients with acute leukemia and recipients of hematopoietic stem cells transplantation (HSCTs).
- ▶ There are clinical classifications of aspergillosis: **allergic** (extrinsic asthma, extrinsic allergic alveolitis, and allergic bronchopulmonary aspergillosis), **saprophytic colonizing** (pulmonary, extrapulmonary), and **invasive** (pulmonary and extrapulmonary). Most human infections arise through inhalation of fungal spores, which are present in indoor and outdoor environments.

Accordingly, isolation of *Aspergillus* spp. from cultures of the respiratory tract of asymptomatic patients with no evidence of invasive or allergic disease is common. Even though it is not always associated with infection, *Aspergillus* colonization is associated with a substantial increase in risk for development of invasive infection across a wide range of immunocompromised individuals.

- ▶ Biomarkers such as 1,3-β-d-glucan and galactomannan are also used. However, these have some limitations, showing low sensitivity in certain population groups, such as patients treated with antifungals. **Molecular diagnostic based on qPCR is proposed as a future alternative for the detection of this pathogen in a more sensitive and specific way.**

## Aspergillus differentiation

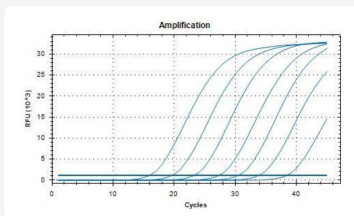
**VIASURE Aspergillus differentiation Real Time PCR Detection Kit** is a real time PCR assay designed for the qualitative detection and differentiation of DNA from *Aspergillus fumigatus*, *Aspergillus flavus* and/or *Aspergillus terreus*, from bronchoalveolar lavages (BAL), bronchoalveolar aspirates (BAS), and sputum clinical samples from individuals suspected of aspergillosis by their healthcare professional (HCP).

**This test is intended for use as an aid in the diagnosis of aspergillosis caused by *Aspergillus fumigatus*, *Aspergillus flavus* and/or *Aspergillus terreus*, in combination with clinical and epidemiological risk factors.**

DNA is extracted from clinical specimens, amplified using real time PCR, and detected using fluorescent reporter dye probes specific for *Aspergillus fumigatus*, *Aspergillus flavus* and *Aspergillus terreus*.

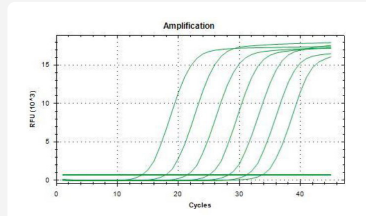
### ► Analytical sensitivity

**VIASURE Aspergillus differentiation Real Time PCR Detection Kit** has a detection limit of  $4 \times 10^{-3}$  CFU per reaction for *Aspergillus flavus*,  $4 \times 10^{-2}$  CFU per reaction for *Aspergillus fumigatus*, and  $8 \times 10^{-2}$  CFU per reaction for *Aspergillus terreus*, with a positive rate of  $\geq 95\%$ , on serum samples, and  $8 \times 10^{-2}$  CFU per reaction for *Aspergillus flavus*, 0.1 CFU per reaction for *Aspergillus fumigatus* and  $4 \times 10^{-2}$  CFU per reaction for *Aspergillus terreus*, with a positive rate of  $\geq 95\%$ , on BAL samples.



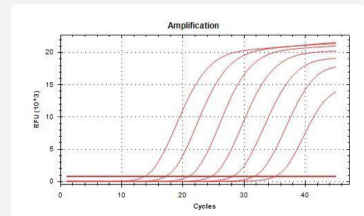
**Figure 1.**

Dilution series of *Aspergillus flavus* ( $10^7$ - $10^1$  copies/rxn) template run on the CFX96™ Real-Time PCR Detection System (Bio-Rad) (channel FAM).



**Figure 2.**

Dilution series of *Aspergillus fumigatus* ( $10^7$ - $10^1$  copies/rxn) template run on the CFX96™ Real-Time PCR Detection System (Bio-Rad) (channel HEX).



**Figure 3.**

Dilution series of *Aspergillus terreus* ( $10^7$ - $10^1$  copies/rxn) template run on the CFX96™ Real-Time PCR Detection System (Bio-Rad) (channel ROX).

### ► References - VIASURE Aspergillus differentiation Real Time PCR Detection Kit

6 x 8-well strips, low profile .....	VS-ASP106L	6 x 8-well strips, high profile .....	VS-ASP106H
12 x 8-well strips, low profile .....	VS-ASP112L	12 x 8-well strips, high profile .....	VS-ASP112H
96-well plate, low profile .....	VS-ASP113L	96-well plate, high profile .....	VS-ASP113H
9 x 4-well strips, Rotor-Gene® .....	VS-ASP136	18 x 4-well strips, Rotor-Gene® .....	VS-ASP172
1 x 8-well strips, low profile .....	VS-ASP101L	1 x 8-well strips, high profile .....	VS-ASP101H
2 x 4-well strips, Rotor-Gene® .....	VS-ASP101	4 tubes x 24 reactions .....	VS-ASP196T

*For more information and use procedure, read the instructions for use included in this product.*

**certest**

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VIASURE/ASP-0423EN