



Real-time PCR detection of vaginal microbiota

A flexible, scalable, and economical solution for your laboratory

Detection of vaginal microbiota with traditional culture-based or microscopy-based methods can lack sensitivity and specificity. As a consequence, interpretation of the results can be subjective, time-consuming, and inaccurate. Real-time PCR can be used to detect slow-growing, difficult-to-cultivate, or uncultivable microorganisms, and it can be a helpful alternative when traditional microbiological techniques lead to ambiguous results. Utilizing real-time PCR techniques with microorganism-specific Applied Biosystems™ TaqMan® Assays enables rapid, accurate detection and categorization of microorganisms that cause bacterial vaginosis, aerobic vaginitis, and vaginal candidiasis.

We have developed a flexible and economical high-throughput real-time PCR testing solution for profiling vaginal microbiota. This solution includes a protocol that has been optimized for isolating DNA from different types of vaginal microbes, a set of validated TaqMan Assays for detecting 34 pathogenic and commensal microbes, and 4 control assays that include human RNase P and bacterial (16S) targets.

Key benefits:

- Enables detection of a broader range of commensal and pathogenic microbes than other commercially available molecular tests
- Qualified content, including positive controls, a user guide, and analytical testing
- More specific, accurate, and precise than traditional culture and microscopy methods
- Flexible assay formats, including single-tube format, custom pre-loaded 384-well plates, custom Applied Biosystems™ TaqMan® OpenArray™ plates, and two off-the-shelf Applied Biosystems™ TaqMan® OpenArray™ plates
- Lower cost per sample than other commercially available solutions

Table 1. TaqMan PCR assays for vaginal microbiota detection and categorization.

Pathogen type	Species		
Bacterial	<i>Atopobium vaginae</i>	<i>Ureaplasma urealyticum</i>	<i>Mycoplasma hominis</i>
	<i>Bacteroides fragilis</i>	<i>Lactobacillus gasseri</i>	<i>Prevotella bivia</i>
	BVAB2	<i>Lactobacillus iners</i>	Uncultured <i>Megasphaera</i> 1
	<i>Enterococcus faecalis</i>	<i>Lactobacillus jensenii</i>	Uncultured <i>Megasphaera</i> 2
	<i>Escherichia coli</i> O18	<i>Mobiluncus curtisii</i>	<i>Haemophilus ducreyi</i> *
	<i>Gardnerella vaginalis</i>	<i>Mobiluncus mulieris</i>	<i>Chlamydia trachomatis</i> *
	<i>Lactobacillus crispatus</i>	<i>Streptococcus agalactiae</i> (group B)	<i>Neisseria gonorrhoeae</i> *
	<i>Staphylococcus aureus</i>	<i>Mycoplasma genitalium</i>	<i>Treponema pallidum</i> *
Fungal	<i>Candida albicans</i>	<i>Candida lusitanae</i>	<i>Candida dubliniensis</i>
	<i>Candida parapsilosis</i>	<i>Candida glabrata</i>	<i>Candida tropicalis</i>
	<i>Candida krusei</i>		
Viral	<i>HSV1</i> *	<i>HSV2</i> *	
Protozoan	<i>Trichomonas vaginalis</i>		
Control	Prokaryotic 16S rRNA gene	Xeno**	
	Human RNase P <i>RPPH1</i> gene	<i>Bacillus atrophaeus</i> **	

* Only available on Applied Biosystems™ TaqMan® OpenArray™ Vaginal Microbiota Comprehensive Plate.

** Only available on Applied Biosystems™ TaqMan® OpenArray™ Vaginal Microbiota Comprehensive Plate v2.

Ordering information

Product	Size	Cat. No.
TaqMan OpenArray Vaginal Microbiota Comprehensive Plate	1 plate	A39899
TaqMan OpenArray Vaginal Microbiota Comprehensive Plate v2†	10 plates	4471121
TaqMan Universal DNA Spike-In Control	1,000 µL (2 x 10 ⁵ copies/µL)	A39175
TaqMan Universal DNA Spike-In Control (5x)	5 x 1,000 µL (2 x 10 ⁵ copies/µL)	A39176
TaqMan Universal Extraction Control Organism	3 pellets (1 x 10 ⁹ CFU)	A39180

† This is an early access product. Panel content and format may change prior to launch.

Explore our complete menu of pathogen detection solutions at thermofisher.com/pathogendetection

Find out more about our vaginal microbiota PCR solutions at thermofisher.com/vm

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