

VetMAX MAP Screening Kit

A fast and accurate method for the diagnosis of *Mycobacterium avium* subsp. *paratuberculosis* (MAP)

Features

The Applied Biosystems[™] VetMAX[™] MAP Screening Kit is a fast and accurate tool for the detection of MAP in fecal samples of multiple species. The test is part of a fully integrated, single-vendor workflow that includes the Applied Biosystems[™] MagMAX[™] sample preparation system and the Applied Biosystems[™] 7500 Fast Real-Time PCR System.

Benefits

Confidence in results

- Friedrich-Loeffler Institute (FLI)-registered
- Earlier detection than with ELISA
- Improved sensitivity and faster results than culture: from feces to PCR results in ~4 hours
- Technical support and training from a dedicated animal health team

Results

High correlation between the VetMAX MAP Screening Kit and Herrold's egg yolk (HEY) culture method

The conventional culture method takes up to 16 weeks, and ELISA may produce highly variable sensitivity results

ranging from 20–80%. Real-time PCR testing answers these challenges and is an effective solution to rapidly detect MAP with high sensitivity. Field studies demonstrate excellent correlation between the C_t and HEY culture results with more than 75% of >500 samples fitting well in a scheme for low, medium, and high shedders (Figure 1).



Figure 1. MAP colonies on HEY culture.



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The detection of MAP bacteria using real-time PCR in combination with ELISA for antibody detection helps enable optimal paratuberculosis control programs.

Paratuberculosis

Usable matrices

Johne's disease, or paratuberculosis, is a worldwide animal health problem affecting ruminants. It is caused by infection with MAP. The presence of the disease can have serious production-limiting consequences and may cause significant economic loss in herds. The disease is difficult to diagnose because of long incubation times. The identification of subclinical disease in animals, which can shed the organism over long periods and thus be the source of infection for other members of the herd, is crucial for disease control.

The combined use of different diagnostic test methods, such as ELISA and real-time PCR tests, helps to identify and remove shedders earlier, thus helping to reduce the hazard of infection for other healthy animals.

Samples

Validated for fecal samples from

Workflow optimized for convenient

cattle, sheep, and goats

0.8 g fecal samples

Nucleic acid extractions

Applied Biosystems[™] MagMAX[™] Total Nucleic Acid Isolation Kit (Cat. No. AM1840)

- Purify DNA away from PCR inhibitors in feces
- Optimize nucleic extraction for the lysis-resistant MAP bacteria
- Automate for higher-throughput sample processing using the Thermo Scientific[™] KingFisher[™] Flex Purification System with 96 Deep-Well Head

VetMAX MAP Screening Kit

• Tests with single-well duplex real-time PCR based on unique proprietary gene target, highly specific for MAP

Amplification

- Achieves diagnostic sensitivity of up to 96%
- Enables reliable results with optimized master mix that reduces PCR inhibitors
- Helps prevent false-negative results using Applied Biosystems[™] Xeno[™] internal positive control to monitor for PCR inhibitors

Ordering information

Product	Туре	Quantity	Cat. No.
VetMAX MAP Screening Kit	Real-time PCR	100 reactions	4468847
Workflow products			
MagMAX CORE Nucleic Acid Purification Kit	Sample prep	100 reactions	A32700
MagMAX CORE Mechanical Lysis Module	Sample prep	100 reactions	A32836
MagMAX CORE Glass Microbeads	Sample prep	100 reactions	A37489
KingFisher Flex Purification System with 96 Deep-Well Head	Sample prep	1 instrument	5400630
7500 Real-Time PCR System with Dell Notebook	Analysis	1 instrument	4363917
Related products			
VetMAX M. paratuberculosis 2.0 Kit	Real-time PCR	100 reactions	MPTSA
VetMAX MAP IS900-F57 Kit	Real-time PCR	100 reactions	TMPT
PrioCHECK MAP Ab 2.0 Plate Kit	ELISA	5-plate kit (460 samples)	63325
		30-plate kit (2,760 samples)	63328
PrioCHECK Ruminant MAP Ab Serum Plate Kit	ELISA	480 tests (5 plates)	VETPTRS5

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