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VetMAX MastiType multiplex qPCR kits offer simultaneous detection of up to 15 mastitis-causing pathogens for immediate and informed action

Because bovine mastitis can cause significant losses, farmers need quick diagnostic results so they can take fast and appropriate action. Traditionally, culture has been used for the diagnosis of mastitis infections, but results can take a long time and pathogens can be difficult to grow, especially for *Mycoplasma* species.

Applied Biosystems[™] VetMAX[™] MastiType multiplex qPCR kits, together with the Applied Biosystems[™] MagMAX[™] CORE Nucleic Acid Purification Kit, are designed to provide same-day results even for *Mycoplasma* spp., enabling farmers and veterinarians to take fast and wellinformed action. We offer a range of kits to meet your specific needs VetMAX MastiType Multi Kit—detects 15 major mastitiscausing pathogens and penicillin-resistance genes in one PCR run

VetMAX MastiType Micro4 Kit—detects all major contagious mastitis-causing pathogens

VetMAX MastiType Myco8 Kit—detects all major Mycoplasma species infecting cattle

MagMAX CORE Nucleic Acid Purification Kit + Mastitis & Panbacteria Module—for fast and convenient nucleic acid extraction from milk samples, yielding high-quality nucleic acids



Advantages of using the VetMAX MastiType kits:

- **Faster results**—typical time from sample to result is 2.5–3 hours, compared to up to 10 days for a culture
- No bacterial culture needed—detection independent of viable bacteria as PCR detects DNA
- Detection of growth-inhibited pathogens—e.g., when treatment was already started
- **Convenience**—sample extraction does not require aspiration and centrifugation
- **Highly accurate**—high sensitivity and specificity for all individual pathogens, compared to up to 40% "no growth" results with bacterial culture
- Superior customer support—support from our experienced animal health service and support team
- Leverage our experience-large portfolio of veterinary diagnostics

Pathogens detected by VetMAX MastiType kits

VetMAX MastiType Multi Kit identifies:	VetMAX MastiType Myco8 Kit identifies:
 Staphylococcus aureus Staphylococcus spp. (including all major coagulase-negative staphylococci) Streptococcus agalactiae Streptococcus dysgalactiae Streptococcus uberis Escherichia coli Enterococcus spp. (including E. faecalis and E. faecium) Klebsiella oxytoca (and/or 	 Mycoplasma spp. Mycoplasma alkalescens Mycoplasma bovis Mycoplasma bovigenitalium Mycoplasma canadense Mycoplasma californicum Staphylococcus aureus Streptococcus agalactiae
 Klebslella oxytoca (and/of K. pneumoniae) Serratia marcescens 	VetMAX MastiType Micro4 Kit identifies:
 Corynebacterium bovis Trueperella pyogenes and/or Peptoniphilus indolicus Staphylococcal β-lactamase gene (penicillin-resistance gene) 	 Mycoplasma bovis Staphylococcus aureus Streptococcus agalactiae Streptococcus uberis
 Mycoplasma bovis Mycoplasma spp. Yeast Prototheca spp. 	

Bovine mastitis diagnosis

Bovine mastitis is the most common and costly disease among dairy cows. It is an inflammation of the mammary gland that is predominantly caused by a bacterial infection. When mastitis is identified in a cow's quarter(s), it is important to identify the pathogen causing the infection because different categories of pathogens require different management strategies. Once the infection is identified, a dairy farmer can work with his or her veterinarian to target an effective treatment plan. Prudent use of antibiotics reduces the likelihood of resistant pathogens developing and can reduce the duration of treatment a cow may need, which in turn decreases operating costs.



Mastitis diagnosis workflow

Samples All VetMAX MastiType kits can be used with the following	extraction MagMAX CORE kit with	Amplification	Interpretation Applied Biosystems™
samples:	Mastitis & Panbacteria Module	or Myco8 PCR kits	VeriVet Software**
MilkBulk milk	 Fast extraction of nucleic acids: only 6 steps, 96 samples purified in 1 hr 	 Multiplex real-time PCR kits based on unique proprietary gene targets 	 Easy readout of positive and negative results with interpretation software
 Preserved milk* (e.g., with bronopol) 	Convenient, without aspiration and centrifugation	High sensitivity and specificityInternal positive control to	Innovative cloud-based data analysis and storage
• Frozen milk	 Manual and automated extraction protocols Automate for higher- throughput sample processing using the Thermo Scientific[™] KingFisher[™] Flex Magnetic Particle Processor with 	 Compatible with the latest PCR instruments such as the Applied Biosystems[™] QuantStudio[™] 5 and 7500 Fast PCR instruments 	Use with QuantStudio 5 and 7500 Fast PCR instruments
* Use of preserved milk samples eliminates the need for cooled transport of samples.	96 Deep-Well Head		** Available free of charge
1 h	our	1.5–2 h	ours
Add lysis buffer	te 5 min, RT		
Start run on KingFisher	bead mix Retrieve samples		

Support from dedicated service and support team

Our team supports the implementation of the workflow in the lab, including instrument installation and thorough hands-on training for laboratory staff. The training session covers sample preparation, proper use of the real-time PCR instrument, and interpretation of results using VeriVet Software.

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Ordering information

Product	Quantity	Cat. No.
VetMAX MastiType Micro4 Kit	100 reactions	A39235
VetMAX MastiType Myco8 Kit	100 reactions	A39236
VetMAX MastiType Multi Kit	100 reactions	A39227
Nucleic acid purification and qPCR all-in-one packages		
VetMAX MastiType Micro4 Combo Kit (A40289 + A39235)	100 reactions	A40292
VetMAX MastiType Myco8 Combo Kit (A40289 + A39236)	100 reactions	A40291
VetMAX MastiType Multi Combo Kit (A40289 + A39227)	100 reactions	A40290
Workflow products		
MagMAX CORE Nucleic Acid Purification Kit with Mastitis & Panbacteria Module	100 reactions	A40289
KingFisher Flex Magnetic Particle Processor with 96 Deep-Well Head	1 instrument	5400630
QuantStudio 5 Real-Time PCR System, 96-well, 0.1 mL, desktop	1 instrument	A28573
QuantStudio 5 Real-Time PCR System, 96-well, 0.2 mL, desktop	1 instrument	A28574
7500 Fast Real-Time PCR System with Dell Notebook	1 instrument	4365464
Related products		
MagNAAX CODE Nucleic Acid Durification Kit	100 reactions	A32700
MagMAX CORE Nucleic Acid Purification Kit	500 reactions	A32702
VetMAX <i>M. bovis</i> Kit	50 reactions	MPBO50

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