

VETERINARY MOLECULAR DIAGNOSTICS

Animal Health

On-farm pathogen detection by isothermal PCR

Two clinical questions – mastitis and bovine respiratory disease – answered on site, the same day. The range identifies the pathogen and, for mastitis, the beta-lactam resistance gene, so targeted treatment can start without waiting for the lab.



MastiSensor® · KIT098

MastiSensor® · KIT117

RespiSensor™ · KIT120



MastiSensor®

Seven pathogens and the *blaZ* resistance gene, from 25 µL of milk

MastiSensor identifies the pathogens responsible for mastitis by LAMP isothermal DNA amplification with a fluorescent probe. Because it targets DNA, it detects bacteria whether they are alive or dead — useful on a treated animal or a frozen sample. The ReadSensor LAMP reads the result automatically, with results in 70 minutes, sample preparation included.

25 µL

of cow's milk — fresh, refrigerated or frozen

7 + blaZ

pathogens plus the beta-lactam resistance gene

No extraction kit

no DNA extraction kit, no thermal cycler

70 min

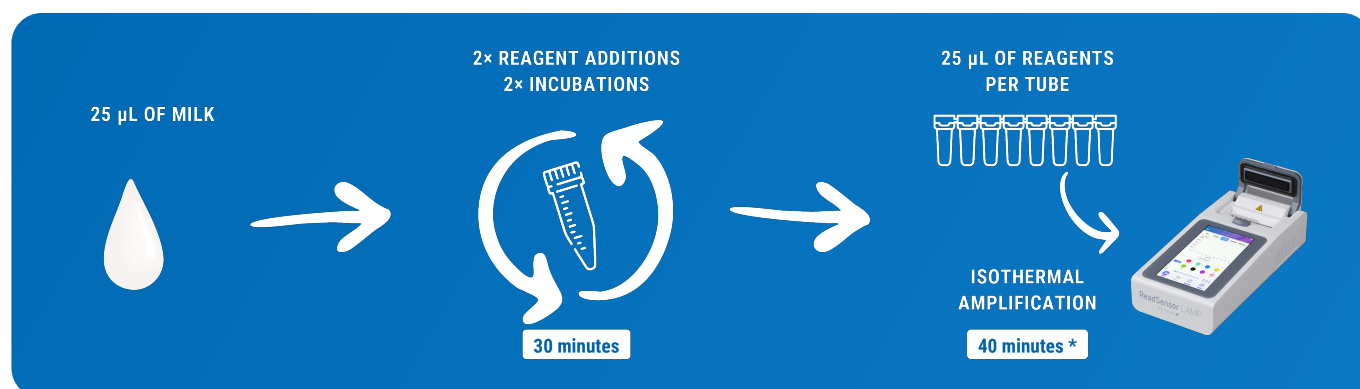
from sample to result, preparation included

TWO PANELS, ONE PROTOCOL

Choose the panel that matches the pathogens prevalent in your region

Pathogen / resistance gene detected	KIT098 7 + 1 detected	KIT117 7 + 1 detected
Gram-positive bacteria	✓	—
<i>Escherichia coli</i>	✓	✓
<i>Staphylococcus aureus</i>	✓	✓
<i>Streptococcus uberis</i>	✓	✓
<i>Streptococcus dysgalactiae</i>	✓	✓
<i>Streptococcus agalactiae</i>	—	✓
<i>Enterococcus</i> spp.	✓	—
<i>Klebsiella</i> spp.	✓	✓
<i>Mycoplasma bovis</i>	—	✓
<i>blaZ</i> resistance gene (beta-lactams)	✓	✓

WORKFLOW



* Real-time analysis — positive results may appear before the end of the run.

RespiSensor™

Seven pathogens and a positive control, from a nasopharyngeal swab or a broncho-alveolar lavage

With RespiSensor, seven key pathogens associated with bovine respiratory disease are detected in a single test. LAMP amplification works on DNA **and** RNA, so bacterial and viral targets run together. The eighth tube of the strip carries a positive control, which confirms that the run is valid.

Bacteria



Histophilus somni



Mycoplasma bovis



Pasteurella multocida



Mannheimia haemolytica

Viruses



Bovine coronavirus (BCoV)



Bovine parainfluenza 3 (BPIV3)



Bovine respiratory syncytial virus (BRSV)

+ positive control in the eighth tube

TWO SAMPLE TYPES

Nasopharyngeal swab

Sterile nylon flocked swab supplied in the kit. Up to three swabs may be pooled in the same lysis buffer tube.

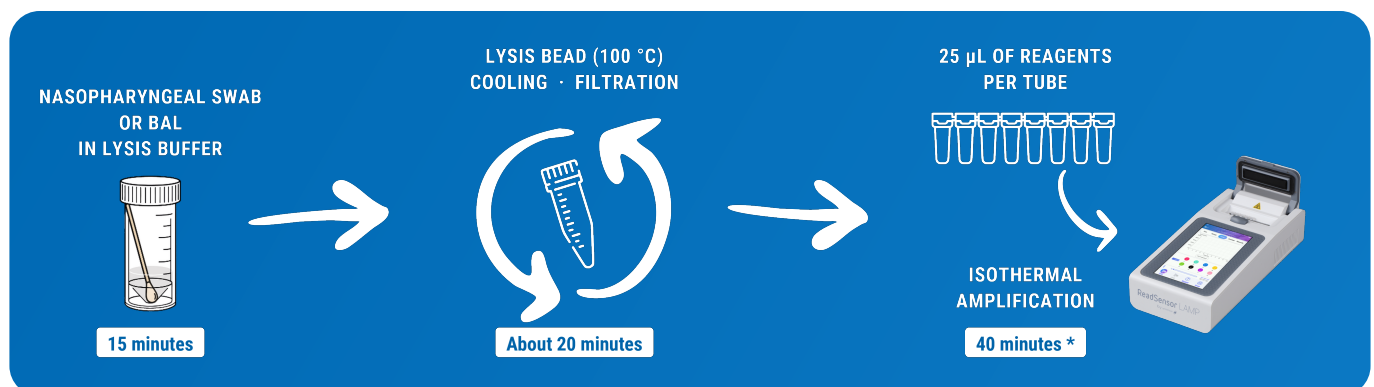
Broncho-alveolar lavage

300 µL of BAL transferred into the lysis buffer tube with the pipette supplied. Same limits of detection as the swab.

« Early BRD treatment improves prognosis, while delays can lead to failure. Greater diagnostic specificity supports more targeted therapy and better outcomes. »

— Kamel MS et al., *Animals*, 2024

WORKFLOW



* Real-time analysis — positive results may appear before the end of the run.

Same technology. Same reader.

All three kits use the same LAMP-based chemistry and run on the same instrument, the ReadSensor LAMP. The same reader, the same result screen and the same workflow across the range: only the kit and its sample preparation change from one test to the next.

THE RANGE AT A GLANCE

 MastiSensor® KIT098 Mastitis · cow's milk 7 pathogens + <i>blaZ</i>, incl. <i>Enterococcus</i> spp. and Gram- positive bacteria 25 µL of milk · 70 min	 MastiSensor® KIT117 Mastitis · cow's milk 7 pathogens + <i>blaZ</i>, incl. <i>Mycoplasma bovis</i> and <i>Streptococcus agalactiae</i> 25 µL of milk · 70 min	 RespiSensor™ KIT120 Bovine respiratory disease 7 pathogens + positive control Nasopharyngeal swab or BAL · about 75 min Sampling box + analysis box
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Same day

from sample to result, on site

Simple prep

on-site sample preparation, no thermal cycler

One reader

ReadSensor LAMP across the range

COMPARED WITH THE ALTERNATIVES

	External laboratory	Unisensor isothermal PCR
Time to result	3–4 days	Same day
Where	Off site	On site
Sample preparation	DNA extraction in the lab	Simple, on site
Amplification	Thermal cycling	Isothermal
Clinical decision	Delayed	Same day
Antibiotic use	Empirical first	Targeted from the start

TALK TO US

Unisensor S.A.

Rue Louis Plescia 8
4102 Ougrée – Belgium

General info@unisensor.be
Orders orders@unisensor.be
Support support@unisensor.be
+32 4 252 66 02 · www.unisensor.be

