

## Role of Inactivating Molecular Transport Medium in Zoonotic Disease Surveillance

### Submitted by:

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Speed and accuracy of zoonotic disease surveillance sampling and testing is vital for rapidly emerging viruses that, as we have just seen with SARS-CoV-2, can kill millions of people and greatly disrupt the world's economy. The global food animal supply faces similar threats as HPAI and ASF continue to spread around the world. While sequencing and qPCR technologies have improved speed and sensitivity of results, **the continuing challenge for molecular diagnostics is a well-collected and preserved sample.**

Proven\* inactivating molecular transport mediums (IMTM) can be used to collect and preserve samples from the field, lysing and stabilizing nucleic acids for safe transportation to laboratories without the cold chain and even at high ambient temperatures. PrimeStore® MTM is the original IMTM that has been proven globally at multiple reference laboratories and can be used to collect a wide range of sample types (blood, urine, fecal, oral fluids, "meat juices", homogenized tissue, swabs of all types including oral, nasal, rectal, environmental) and pathogens (ASF, CSF, FMD, AI, ND, SARS-CoV-2, Influenza, MTB, *M.Bovis*, Cryptosporidium).

PrimeStore® MTM is easy to use when collecting samples on farms, in meat processing facilities, or in the wild, and provides high quality nucleic acids for qPCR and sequencing on many well-known testing platforms. Low copies (single digit) of virus or bacteria in asymptomatic subjects (human patients et al) are found in both viral load testing and qPCR from PrimeStore®-protected samples.

With over a decade of publications, PrimeStore® MTM is a patented technology that discloses its components, unlike copy products that do not. Safety in transit and safety for scientists in laboratories were additional driving forces behind the invention of IMTM. Using PrimeStore® MTM as part of proper surveillance with regular ongoing testing is the early warning system the world needs against animal and zoonotic pandemics.

\* "Analysis of Inactivation of SARS-CoV-2 by Specimen Transport Media, Nucleic Acid Extraction Reagents, Detergents, and Fixatives", Marian J. Killip et al, Journal of Clinical Microbiology, August 2020, November 2020, Volume 58, Issue 11 e01713-20. "However, infectious virus remained recoverable in treated samples after inactivation with most reagents tested... the exceptions to this were PrimeStore MTM...from which no residual virus was detectable..."



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