

Now sold as
Thermo Scientific

PathoProof™ Mastitis PCR Assay

Reference Application

Finnzymes Diagnostics, Finland

Finnzymes Diagnostics' service laboratory uses the PathoProof™ Mastitis PCR Assay to offer mastitis testing service for Finnish veterinarians and dairy producers. The key features of the service, called MasTest™, are convenience in sample logistics, fast turn-around time, and high sensitivity (low amount of negative results). Due to its significant benefits over conventional culturing, the MasTest service has been received very well by the veterinarians and dairy producers, and the number of samples tested is growing very rapidly.

Efficiently organized service

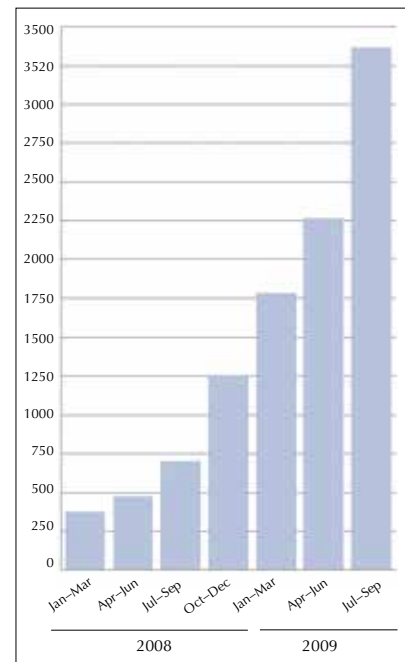
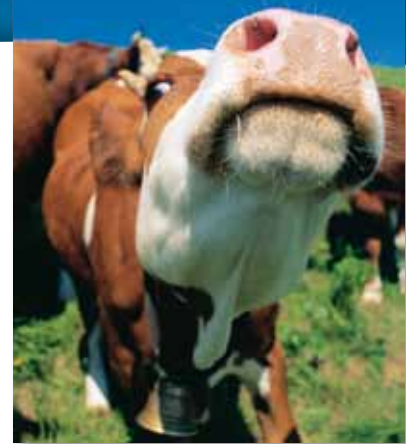
Finnzymes' laboratory has been offering a mastitis testing service (MasTest™) to dairy producers and veterinarians across Finland since the beginning of 2008. The service is based on the PathoProof Mastitis PCR Assay, and the test reports all main mastitis-causing pathogens (11 species or groups in total) as well as the staphylococcal beta-lactamase penicillin resistance gene.

The samples submitted for the MasTest service are bronopol-preserved quarter milk samples from clinical or subclinical mastitis. Bronopol eliminates bacterial growth during sample transportation, and the veterinarians and dairy producers send the samples using normal overnight mail. The samples arrive to the laboratory in the morning, and the results are available from a web server or using a text message service by 4 pm the same day.

MasTest service provides high value for the customer

Based on a very sensitive bacterial identification method, the MasTest service provides a much higher number of positive results than the conventional bacterial culturing where 'no-growth' results are a major problem. Since the beginning of the MasTest service, approximately 90 % of the samples analyzed have yielded positive results for mastitis-causing bacteria. The MasTest service also reports bacterial proportions in cases where multiple species are found in a sample. Compared to conventional culturing, where such samples would be diagnosed as 'contaminated' or 'mixed growth', this feature helps the veterinarian in making educated mastitis management decisions for a maximal number of samples submitted for testing.

Convenience in sample logistics, fast turn-around time, and more sensitive results are significant benefits for the customer. Indeed, since less than two years of its launch, the service is currently being used for testing ~15,000 samples (from 330 000 dairy cows in total) in Finland annually, and the number is growing rapidly.



Amount of mastitis samples analyzed at Finnzymes in 2008–2009. As indicated by the rapidly increasing sample numbers, the test is being well-received by the Finnish veterinarians and dairy producers.

PathoProof™ is a trademark of Finnzymes Oy, a Thermo Fisher Scientific company. Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased solely in Industrial Microbiology Applications and Food Testing Applications and also for the purchaser's own internal research. No other patent rights are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.