



# PrioCHECK *Salmonella* antibody ELISA kits (bovine)

The only commercially available solution for diagnosing bovine salmonellosis\*

Applied Biosystems™ PrioCHECK™ *Salmonella* antibody ELISA kits provide effective and fast detection of bovine anti-*Salmonella* antibodies.

## Benefits

### Helps protect human and animal health

- Standardized, commercially available diagnostic tests
- Suited for use in screening and monitoring programs for bovine salmonellosis
- Deliver actionable results that allow implementation of measures to avoid infections

### Convenient tool for large-scale testing

- Easy 4-step protocol
- Results are typically available within 150 minutes
- Works with serum, plasma, and (bulk) milk samples

## Proven tests

- Commercial version of the *Salmonella* bovine ELISA kits developed by the Danish Veterinary Institute
- Good correlation with in-house tests of the Danish Veterinary Institute that have been used successfully in *Salmonella* control programs for over 20 years

## Excellent performance

Internal and external validation of PrioCHECK *Salmonella* antibody ELISA kits show excellent performance and good correlation with the Danish in-house ELISA kits on bovine milk and serum samples (Tables 1 and 2). In the external validation conducted by the Swedish National Veterinary Institute on 1,067 bulk milk samples, the Applied Biosystems™ PrioCHECK™ *S. dublin* Ab Strip Kit showed a specificity of 99.4% and a correlation with the Danish Dublin ELISA Kit of 0.83. The PrioCHECK™ Bovine *Salmonella* Ab Strip Kit had a specificity of 99.8% on bulk milk samples.\*\*

## Bovine salmonellosis

Salmonellosis in cattle is a zoonotic disease caused by *Salmonella* bacteria. Infections in cattle can cause serious economic losses. Infection of humans by consumption of infected meat or dairy products can cause severe illness or even death. *S. dublin* and *S. typhimurium* strains are the most frequently occurring in cattle. The *S. dublin* strain is particularly invasive in humans. The strain is adapted to cattle and can, unlike most other *Salmonella* strains, persist in cattle herds for decades. Monitoring programs to reduce *Salmonella* loads in cattle herds contribute significantly to food safety protection. These programs allow the culling of

carrier animals and help avoid the reintroduction of positive animals into a herd. The PrioCHECK *Salmonella* bovine antibody ELISA kits are the only commercially available tools for such monitoring and surveillance programs.

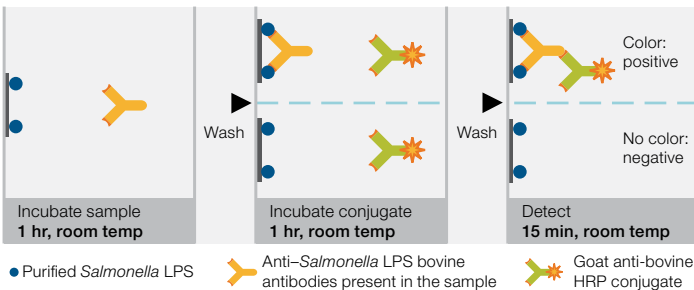
The PrioCHECK Bovine *Salmonella* Ab Strip Kit detects both *S. dublin* and *S. typhimurium* strains. The test detects antibodies directed against the 1, 4, 5, 12 O-antigens of the *S. dublin* strain and 1, 9, 12 of the *S. typhimurium* strain. The PrioCHECK *S. dublin* Ab Strip Kit detects *S. dublin* more specifically, but not exclusively: some cross-reactivity with *S. typhimurium* can occur. Both tests are suitable for large-scale screening of bovine serum, plasma, and (bulk) milk samples.

**Table 1. Correlation of the PrioCHECK *S. dublin* Ab Strip Kit with the Danish in-house *Salmonella dublin* ELISA kit on milk and serum samples.**

	Sample type	Danish <i>Salmonella dublin</i> ELISA kit
PrioCHECK <i>S. dublin</i> Ab Strip Kit (bovine)	Milk	0.96
	Serum	0.85–0.90

**Table 2. Correlation of the PrioCHECK Bovine *Salmonella* Ab Strip Kit with the Danish in-house *Salmonella* mixed ELISA kit on milk and serum samples.**

	Sample type	Danish <i>Salmonella</i> mixed ELISA kit
PrioCHECK Bovine <i>Salmonella</i> Ab Strip Kit	Milk	0.85–0.97
	Serum	0.92–0.97



## PrioCHECK Bovine *Salmonella* Ab Strip Kit procedure

## Ordering information

Product	Quantity	Cat. No.
PrioCHECK Bovine <i>Salmonella</i> Ab Strip Kit	450 samples	7610620
PrioCHECK <i>S. dublin</i> Ab Strip Kit	450 samples	7610640

\* In the US this product is only available with a research and evaluation permit.

\*\* Nyman AK et al. (2013) Evaluation of the specificity of three enzyme-linked immunosorbent assays for detection of antibodies against *Salmonella* in bovine bulk milk. *Acta Vet Scand* 55:5.

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