## VETSIGN™ Salmonella-Ab

# Controlling Salmonella at essential stages of pork production

**SUMMARY** | VETSIGN™ *Salmonella*-Ab ELISA is based on an antigen mix to *Salmonella* O-antigens, giving you the advantage of detecting a variety of relevant serotypes. A benefit in control programmes is the possibility of testing meat juice and serum/plasma samples in the same assay enabling the detection and control of Salmonella at farm level and at slaughter houses.

## **Your challenge** is a zoonotic disease with latency in infected swine

*Salmonella* is an important public health hazard. To combat salmonellosis in humans, it is essential to control *Salmonella* in livestock and animal-derived products. There are numerous serotypes that can affect pigs and in the majority of cases clinical disease is absent. During infection, large amounts of bacteria are excreted with faeces, creating a risk for transmission of *Salmonella* to other individuals or carcasses.

## **Your goal** is fast and reliable identification of infected herds

*Salmonella* infection is difficult to confirm in individuals, but detection probability can be improved by screening a whole herd for the presence of the bacterium or specific antibodies to it. Serology is a cost-effective way to evaluate a large number of samples. It is ideal for estimating the herd-prevalence of *Salmonella* infection and monitoring the effectiveness of control programmes in countries with high prevalence.

## ASSAY OVERVIEW

**VETSIGN™ *Salmonella*-Ab**

| | |
|---|---|
| **Species** | Porcine |
| **Samples** | Meat juice, serum and plasma |
| **Type** | Indirect ELISA based on mixed antigens of *S. Choleraesuis* (O antigens 6 and 7) and *Typhimurium* (O antigens 1, 4, 5 and 12) |

| Article number | Samples* | Plates | Format |
|---|---|---|---|
| 104912 | 184 | 2 | Strips |
| 104913 | 920 | 10 | Plates |

*__Samples__: Max. number of samples for analysis, wells for kit controls excluded

**Detects antibodies to numerous relevant serotypes** of Salmonella subspecies

**Validated for serum and meat juice samples** - providing the flexibility to test pigs at farms and at slaughterhouses

**Cost-effective assay** - enables testing of a large number of animals and provide serological herd classification

**Good agreement with other commercial tests in ring trials and in proficiency testing**

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VETSIGN™ *Salmonella*-Ab provides the accurate results needed to combat *Salmonella* infections in breeding and slaughter pigs at different stages of the pig production chain.

**Flexible formats** – for low throughput and large scale testing

**Dual functionality** – enables testing of meat juice and serum/plasma in the same assay

**Effective handling** – ready-to-use reagents and results in less than 1.5 hrs

**High quality** – thoroughly validated and manufactured under strict ISO 9001:2008 standardised procedures in Sweden

## YOUR SUPPORT

From 9am-4pm CET call:
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## PERFORMANCE CHARACTERISTICS
### VETSIGN™ *Salmonella*-Ab

VETSIGN™ *Salmonella*-Ab detects accurately a broad spectrum of serotypes that should not be introduced to the food chain. The excellent analytical performance of VETSIGN™ *Salmonella*-Ab has been demonstrated in both serum and meat juice samples.

| **VETSIGN™ *Salmonella*-Ab detects** | | | |
|---|---|---|---|
| *S. Typhimurium* | + | *S. Livingstone* | + |
| *S. Infantis* | + | *S. Brandenburg* | + |
| *S. Cholerasuis* | + | *S. Panama* | + |
| *S. Derby* | + | *Y. Enterocolitica* | - |

VETSIGN™ *Salmonella*-Ab yielded good results in a study on the serologic detection of *Salmonella* spp. antibodies in meat juice and serum at the Laboratory for Zoonosis and Environmental Microbiology, Netherlands (Berk et al., 2008).

High specificity was also shown in a population with low prevalence of *Salmonella* spp./only sporadic cases in Sweden.

| Sample | Sensitivity | Specificity | Reference method |
|---|---|---|---|
| Serum[a] n= 71 | n.a. | 100 % | Population free of salmonellosis/sporadic cases |
| Meat juice[a] n= 64 | n.a. | 100 % | Population free of salmonellosis/sporadic cases |

[a] **Samples from Swedish commercial herds**

VETSIGN™ *Salmonella*-Ab delivered good results in the proficiency test of different *Salmonella* enterica serovars coordinated by the Animal Health Service Ltd, Netherlands (Wellenberg et al., 2011).

| Serum samples* | VETSIGN™ *Salmonella*-Ab | Serum samples* | VETSIGN™ *Salmonella*-Ab |
|---|---|---|---|
| *S. Typhimurium* | | *S. Livingstone* | |
| strong positive | + | weak positive | - |
| strong positive | + | positive | + |
| positive | + | *S. Panama* | |
| positive | + | strong positive | + |
| *S. Brandenburg* | | weak positive | - |
| weak positive | + | Negative (SPF) | - |
| positive | + | Negative (SPF) | - |

***from experimentally infected pigs or non-infected specific-pathogen-free pigs collected 56-58 days post infection**

**Reference:** Berk, P.A., van der Heijden H.M.J.F. (GD Deventer) Mooijman, K.A. (2008): CRL-Salmonella, Comparability of different ELISAs on the detection of Salmonella spp. antibodies in meat juice and serum. RIVM Report 330604007/2008.

Wellenberg van de Sande, Buter, Swart, de Wit (2011: Report of the 2010 International Proficiency Testing Scheme (PTS) for Salmonella enterica serovars antibody detection in porcine serum. Final report, 1-18.

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