

## BioSprint® 96 One-For-All Vet Kit

### For pathogen nucleic acid purification from veterinary samples

The BioSprint 96 One-For-All Vet Kit enables rapid automated purification of viral nucleic acids and bacterial DNA from a broad range of veterinary samples on the BioSprint 96. Purified nucleic acids are suitable for pathogen detection in downstream assays.

#### The BioSprint 96 One-For-All Vet Kit provides:

- Simultaneous purification of viral DNA and RNA and bacterial DNA
- Pure nucleic acids, ready for use in downstream applications
- All reagents and plasticware required for purification
- Fast processing of up to 96 samples per run
- An automated procedure, saving time and effort

#### Rapid and economical automated purification

The BioSprint 96 One-For-All Vet Kit uses magnetic-particle technology for rapid purification of nucleic acids. Lysates are loaded into the BioSprint 96, which then performs all steps of the purification procedure, saving you time and effort. The fast automated procedure (Figure 1) enables processing of up to 96 samples in just 24 minutes.

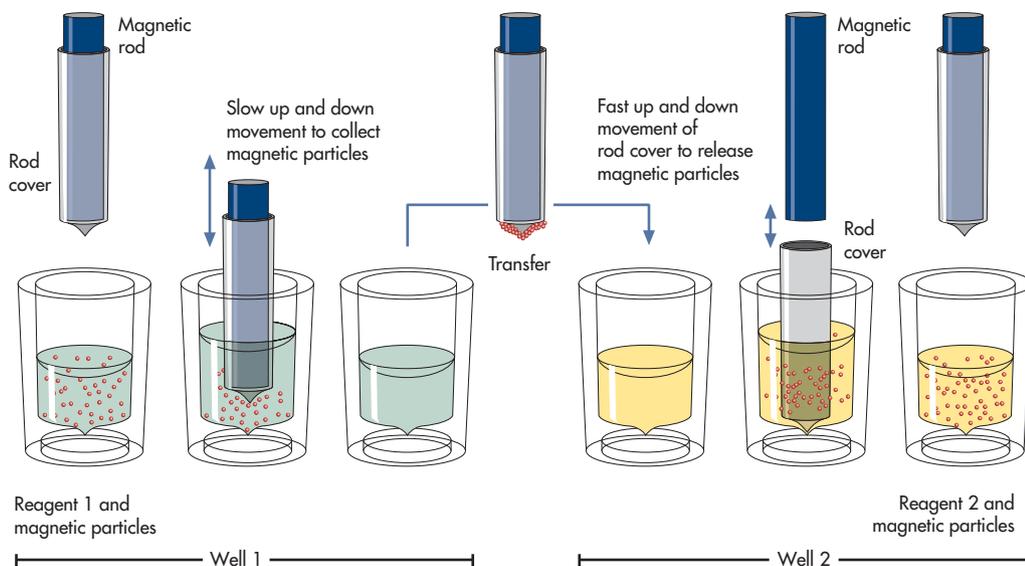
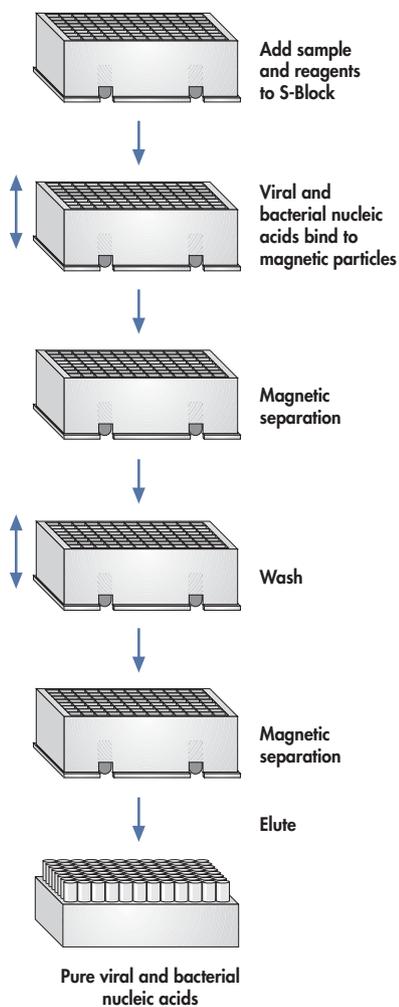


Figure 1. Efficient processing using magnetic particles.



## BioSprint 96 One-For-All Vet Procedure



Manual sample preparation

Fully automated nucleic acid purification

## Efficient purification of pathogen nucleic acids

The BioSprint 96 One-For-All Vet Kit simplifies purification of viral RNA and DNA as well as bacterial DNA from a broad range of veterinary samples, including whole blood, serum, plasma, tissues, swabs, and washes. Optimized, preinstalled protocols (Table 1) ensure efficient and reliable purification of high-quality nucleic acids (Figures 2 and 3). Purified viral RNA enables more sensitive results in downstream applications. Viral RNA purified using the BioSprint 96 One-For-All Vet Kit exhibits lower  $C_T$  values in real-time RT-PCR applications than nucleic acid purified using a kit from Supplier A<sub>IVV</sub>, allowing reliable detection of BVDV in a simulated pool of 100 samples containing just one positive sample (Figure 4).

**Table 1. BioSprint 96 One-For-All Vet protocols**

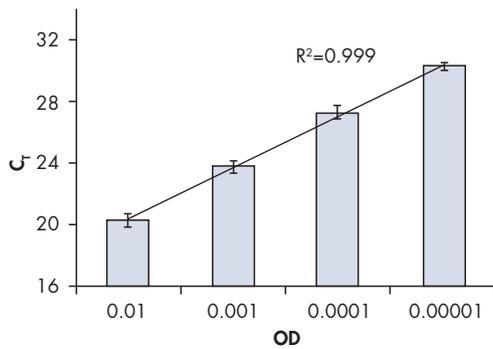
	BS96 Vet Blood 200	BS96 Vet 100
<b>Analyte</b>	Viral nucleic acids and bacterial DNA	
<b>Starting material</b>	Animal whole blood	Animal tissue homogenates, serum, plasma, other body fluids (e.g., cerebrospinal, synovial, or peritoneal fluid), swab media (e.g., nasal, pharyngeal, or cloacal), and washes (e.g., BAL)
<b>Volume</b>	200 µl	100 µl
<b>Lysis and binding solution</b>	Buffer AL	Buffer RL
<b>Chaotropic salt</b>	Guanidine hydrochloride	Guanidine thiocyanate
<b>Number of wash steps</b>	4*	3

\* An additional wash step is included to efficiently remove impurities from whole blood samples.

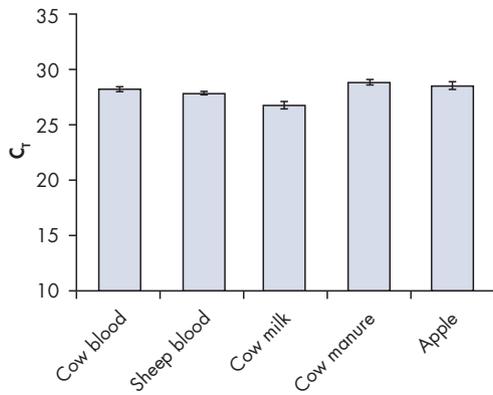
## Applications

Purified viral nucleic acids and bacterial DNA enable sensitive and robust detection in downstream assays, including applications in:

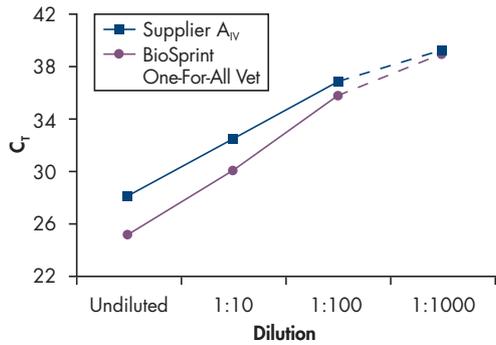
- Routine testing
- Outbreak situations
- Eradication programs
- Veterinary pathogen research



**Figure 2. Precise, linear purification of bacterial DNA from cultures.** A *Taylorella equigenitalis* culture was serially diluted with PBS. The optical density (OD) at 600 nm was determined for 4 replicates of 4 dilutions. Bacterial DNA was purified from 6 replicates using the BioSprint 96 One-For-All Vet Kit and quantified using an in-house *T. equigenitalis* PCR assay.



**Figure 3. Reliable purification of bacterial DNA from various sample types.** Different sample types were spiked with a *Bacillus subtilis* culture. Cow manure and homogenized apple tissue were used as 10% suspensions. Blood and milk were not subjected to pretreatment. Triplicates of samples (200  $\mu$ l) were purified with the BioSprint 96 One-for-All Vet Kit. Eluates were analyzed using primers specific for *B. subtilis* and the QuantiTect<sup>®</sup> SYBR<sup>®</sup> Green PCR Kit.



**Figure 4. Sensitive detection of viral RNA in animal whole blood samples.** Whole blood samples from BVDV infected cattle were diluted 10-fold with negative samples as indicated to simulate pooling. Viral RNA was isolated on the BioSprint 96 from 50  $\mu$ l samples using either the BioSprint 96 One-For-All Vet Kit or a kit from supplier A<sub>iv</sub>. Purified viral RNA was analyzed using an in-house BVDV RT-PCR assay.

## Ordering Information

Product	Contents	Cat. no.
BioSprint 96 One-For-All Vet Kit (384)	For 384 preps: Large 96-Rod Covers, 96-Well Microplates MP, S-Blocks, MagAttract® Suspension G, Buffers and Reagents	947057

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For more information about the BioSprint 96 One-For-All Vet Kit, visit [www.qiagen.com/goto/BioSprint96Vet!](http://www.qiagen.com/goto/BioSprint96Vet!)

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