



## Bursa-Vac® 51 Vaccine: A Plaque-Purified Isolate

**W**hat is a plaque-purified isolate?

**Bursa-Vac® 51** vaccine is a plaque-purified virus from a field isolate. "Plaque-purified" means that only one single virus population is found in the vaccine. Many vaccines contain a single type of virus, but within that virus type, several individual virus populations exist. Each individual virus within a mixed population vaccine might have characteristics that make it milder or more virulent than other individual viruses in the vaccine.

When a vaccine is plaque-purified, only one virus is picked and allowed to grow. This means that every single vaccine serial will be exactly the same: there will be no danger that the milder strains will predominate in one serial, while the more virulent strains predominate in the next.

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### Spectrum of protection

Some producers select vaccines which are not plaque-purified in order to achieve the broadest possible spectrum of immunity. The problem is, these vaccines depend upon the virus population mixture to provide broad-spectrum protection. If the milder viruses predominate in one serial and the more virulent viruses predominate in the next, the spectrum of protection may change as well. The producer may find that a vaccine suddenly fails where it was successful before.

The spectrum of protection of a plaque-purified vaccine depends on one single purified virus population with unique ability to cross protect against several viral populations. The broad spectrum protection of **Bursa-Vac® 51** vaccine will remain unchanged from one serial to the next providing consistent protection.

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### Key Points

- ➔ **Plaque-purification ensures consistent field performance and field safety from a single selected virus population.**
- ➔ **Bursa-Vac® 51 vaccine induces strong protection against both classic and variant IBD challenge viruses with a consistent, purified, selected virus strain.**

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### Ability to break through maternal antibody

Just like spectrum of immunity, the ability of a vaccine which is not plaque-purified to break through maternal antibody depends upon the virus population mixture, and may vary from serial to serial. A plaque-purified product like **Bursa-Vac® 51** vaccine will have the same ability serial after serial.

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### Safety

When a plaque-purified vaccine is used in the field, a producer can be certain that only mild viruses which do not cause severe bursal damage are being introduced to the premises. There is no danger of a "hot" sub-population of the vaccine seeding down the premises and causing future problems. Ideally, the milder vaccine virus might even displace some of the existing field viruses, reducing the overall challenge. A producer can be certain that exactly the population needed for protection, and nothing more, will be introduced to the premises. The producer can also be certain that from vaccine serial to vaccine serial it will be exactly the same mild population.

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### Conclusion

Plaque-purification enhances the safety and consistency of an IBD vaccine without adversely affecting the ability of the vaccine to protect against a broad-spectrum of IBD challenge viruses. **Bursa-Vac® 51** vaccine has demonstrated strong protection against both classic and variant IBD strains (Schering-Plough Animal Health Corporation technical bulletins 428 and 429). Plaque-purification ensures that this broad-spectrum protection will remain consistent serial after serial.

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[ Innovative Solutions in Poultry Health ]



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