



Bursa-Vac[®] 51 Vaccine: Broad-spectrum Protection Against IBD Variants Without Severe Bursal Damage

Bursa-Vac[®] 51 vaccine and Merial's SVS 510[®] IBD vaccine were compared to determine the ability of each vaccine to protect against variant infectious bursal disease virus (IBDV) challenge and to determine the amount of bursal damage produced by each product. Bursa: body weight ratios were used to determine the protection of each vaccine against challenge with virulent IBD, and to determine the amount of damage caused by each vaccine alone compared to unvaccinated controls.

Bursa-Vac[®] 51 vaccine vs. SVS 510[®] vaccine: variant IBD challenge study

Fourteen-day-old SPF leghorn chickens were vaccinated with Bursa-Vac[®] 51 vaccine or SVS 510[®] vaccine via the drinking water. Two weeks post-vaccination, the vaccinates and the non-vaccinated controls were divided into groups and challenged with three variant strains of IBDV. The variant challenge strains were Delaware E, Mississippi (trial 1) and Georgia U28 (trial 2). Average bursa to body weight ratios were determined for each group (Tables 1 and 2).

Key Points

- ➔ Bursa-Vac[®] 51 vaccine and Merial's SVS 510[®] IBD vaccine demonstrated comparable protection against the variant IBD challenge viruses tested.
- ➔ Bursa-Vac[®] 51 vaccine demonstrated substantially less bursal damage than SVS 510[®] vaccine in each trial.

Conclusion

Bursa-Vac[®] 51 vaccine demonstrated protection against variant IBD strains comparable to the Merial bivalent IBD vaccine containing standard + Delaware A variant IBD. Vaccine-induced bursal damage was less in unchallenged Bursa-Vac[®] 51 vaccinates than in the SVS 510[®] vaccinates.

Table 1: Bursa-Vac® 51 vs SVS 510® Delaware E and Mississippi variants of IBD virus; unchallenged controls

Vaccine	Challenge Virus	Bursa: Body Weight Ratio(x1000)	% Protection
Bursa-Vac® 51	Delaware E	4.8	93.3%^a
SVS 510®	Delaware E	2.9	100%^a
Unvaccinated Control	Delaware E	1.2	0%
Bursa-Vac® 51	Mississippi	3.3	100%
SVS 510®	Mississippi	2.2	100%
Unvaccinated Control	Mississippi	1.1	0%
Bursa-Vac® 51	None	4.3	NA
SVS 510®	None	2.1	NA
Unvaccinated Control	None	5.6	NA

^a No statistically significant difference in percent protection.

Table 2: Bursa-Vac® 51 vs SVS 510® Georgia U28 variant of IBD virus; unchallenged controls

Vaccine	Challenge Virus	Bursa: Body Weight Ratio (x1000)	% Protection
Bursa-Vac® 51	GA U28	4.6	100%
SVS 510®	GA U28	3.5	87%
Unvaccinated Control	GA U28	1.4	0%
Bursa-Vac® 51	None	5.8	NA
SVS 510®	None	3.6	NA
Unvaccinated Control	None	6.6	NA

[Innovative Solutions in Poultry Health]



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