

# AVIPRO® MEGAN® VAC 1

Broilers

VACCINES



**The label contains complete use information, including cautions and warnings. Always read, understand and follow label and use directions.**

AviPro Megan Vac 1 for broilers is a USDA-licensed vaccine recommended as an aid to reduce colonization of *S. Typhimurium*, *S. Enteritidis* and *S. Heidelberg*.

#### AviPro Megan Vac 1 Directions for Use:

Vaccinate chickens at one day of age by coarse spray application. A second dose should be given at 14 days of age in the drinking water.

#### Dose:

Apply vaccine to all birds in flock

**CAUTION:** Store at 2°–8°C (35°–46°F). Do not freeze.

Contact Elanco with questions at 1-800-428-4441 or 1-888-545-5973.

#### FOR VETERINARY USE ONLY

<sup>1</sup>Elanco Animal Health. Data on file.

<sup>2</sup>Elanco Animal Health. Data on file.

<sup>3</sup>McReynolds JL, et al. Evaluation of a competitive exclusion culture and Megan Vac 1 on *S. Typhimurium* colonization in neonatal broiler chickens. *J. Appl. Poult. Res.* 2007;16:456-463.

<sup>4</sup>Van Immerseel F, et al. The effect of vaccination with a *S. Enteritidis* aroA mutant on early cellular responses in caecal lamina propria of newly-hatched chickens. *Vaccine.* 2002;20:3034-3041.

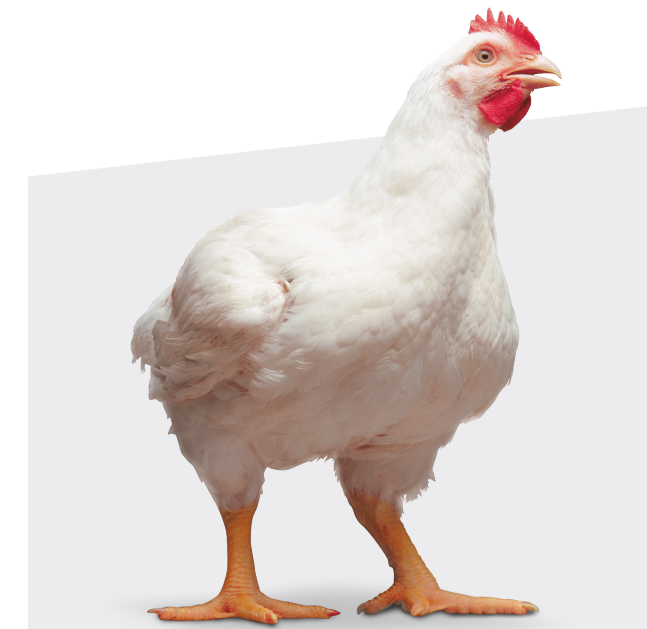
<sup>5</sup>Elanco Animal Health. Data on file.

<sup>6</sup>Hassan JO, et al. Control of colonization by virulent *S. Typhimurium* by oral immunization of chickens with a virulent  $\Delta$ cya  $\Delta$ crp *S. Typhimurium*. *Res. Microbiol.* 1990;141:839-850.

<sup>7</sup>Babu U, et al. *S. Enteritidis* clearance and immune responses in chickens following *Salmonella* vaccination and challenge. *Vet. Immunol. Immunopathol.* 2004;101:251-257.

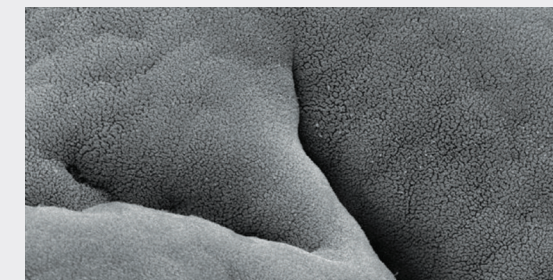
<sup>8</sup>Holt PS. Use of a live attenuated *S. Typhimurium* vaccine to protect hens against *S. Enteritidis* infection while undergoing molt. *Avian Dis.* 2003;47:656-661.

<sup>9</sup>Hassan JO, et al. Development and evaluation of an experimental vaccination program using a live avirulent *S. Typhimurium* strain to protect immunized chickens against challenge with homologous and heterologous *Salmonella* serotypes. *Infect. Immun.* 1994;62:5519-5527.

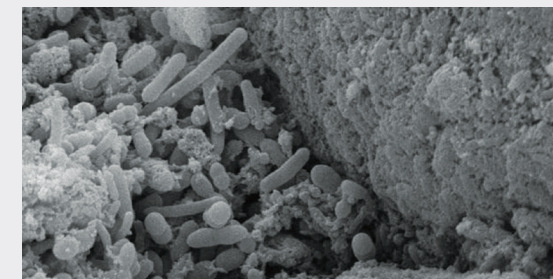


#### Intestinal lining of day-old bird

Before coarse spray vaccination



After coarse spray vaccination



Photos: Elanco Animal Health

## Salmonella Protection is an Everyday Investment

As part of a comprehensive *Salmonella* control program, AviPro® Megan® Vac 1 is a safe, effective and targeted intervention providing *Salmonella* protection every day.<sup>1</sup> Mitigating food safety risk starts by prioritizing bird health, food chain safety and brand protection with a consistent, comprehensive *Salmonella* control program.

## Reduce Shedding, Reduce Prevalence

The major obstacle to *Salmonella* control in the poultry industry is the ubiquitous presence of *Salmonella*. Poultry can be latent carriers, shedding and spreading *Salmonella* when stressed. Preventing colonization as early and effectively as possible reduces shedding — and subsequently the spread of *Salmonella*.

AviPro Megan Vac 1 stimulates protective immunity and reduces *S. Typhimurium* (ST), *S. Heidelberg* (SH) and *S. Enteritidis* (SE) infections in young, growing chickens — ultimately contributing to reduced environmental prevalence over time.<sup>2</sup> Live ST vaccines, such as AviPro Megan Vac 1, provide a competitive exclusion (CE) effect against wild-type *Salmonella* and immunity as early as 12 hours.<sup>3,4</sup> In addition, AviPro Megan Vac 1 can be easily identified by its unique biochemical profile compared to wild-type *Salmonella*.<sup>5</sup>

## Application Ease

With coarse spray and drinking water applications, the two-dose application protocol of AviPro Megan Vac 1 easily adapts to hatchery and field vaccine programs. These vaccination methods parallel the natural infection path of *Salmonella*, triggering local, humoral and cell-mediated immune responses that are unique only to live *Salmonella* vaccines.<sup>6,7</sup> This protective immunity translates to reduced infections and shedding when birds encounter a field infection of wild-type *Salmonella*.<sup>8</sup>

### AviPro Megan Vac 1 Application — Broilers

SPRAY	DRINKING WATER
Use 1000 doses for 1000 chicks	Can mix with NDV-IB vaccines
Can mix with NDV-IB vaccines	Remove disinfectants 24 hours prior and after application
Use dye with stabilizer and vaccine	Raise lines 1 hour prior
Check tongue staining	Use dye and stabilizer with vaccine

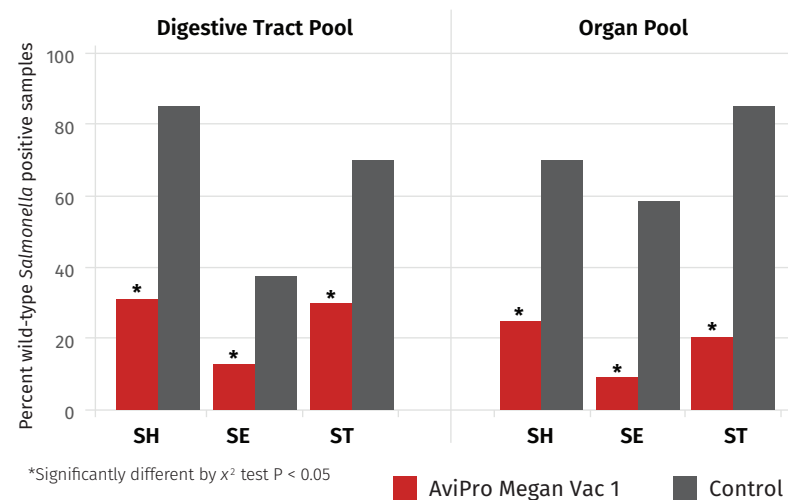
## Effective Control

In a controlled study, AviPro Megan Vac 1 research has shown a significant reduction of ST, SH and SE in young chicks. One-day-old leghorn chicks were vaccinated with AviPro Megan Vac 1, revaccinated through drinking water at two weeks of age and then challenged with ST, SH, and SE wild-type strains at six weeks of age. AviPro Megan Vac 1-treated birds showed significantly reduced *Salmonella* colonization post-challenge when compared to non-vaccinated birds.<sup>2</sup>

Research has shown that in addition to providing excellent protection against serogroups B and D *Salmonella* spp., the live ST vaccine induces significant cross-protection against *Salmonella* strains belonging to serogroups C and E.<sup>9</sup>

### Efficacy Trial Results<sup>2</sup>

Percent wild-type SH, SE or ST positive samples 5 to 7 days post challenge



## Comprehensive Control

A comprehensive *Salmonella* control program is necessary to disrupt the transmission of *Salmonella*. Vaccination alone cannot be relied upon to prevent *Salmonella* infections. Conducting risk evaluations for sources of *Salmonella* entry, implementing biosecurity assessments and focusing on a proactive control program are all necessary.

**Comprehensive *Salmonella* control programs should include:**

- Optimizing gut health
- Strong biosecurity measures
- Environmental monitoring
- Litter management
- Pest and rodent control
- Water and feed management

It may take multiple cycles of consistent control practices and vaccination of flocks to manage the *Salmonella* burden in live production. AviPro Megan Vac 1 provides an effective option as part of a comprehensive *Salmonella* control program.

## Act Now. Protect Tomorrow.

AviPro Megan Vac 1 is part of a broad portfolio of Elanco poultry solutions offering confidence and peace of mind. With both inactivated and live vaccines, Elanco offers proactive *Salmonella* protection for all segments of the poultry industry. Our dedicated Elanco team is ready to help you develop a comprehensive *Salmonella* control program today.