



Salmin Plus

Inactivated Salmonella Bacterin



***Added Value for
Salmonella Control***

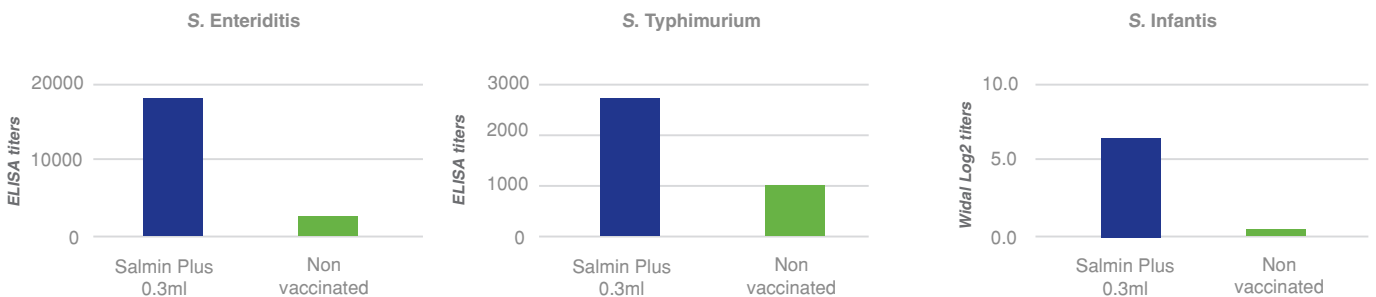
Salmin Plus - completely absorbed, no damage at the site of IM injection compared to extensive damage caused by conventional water in oil vaccines.



Comparison of chicken breasts vaccinated with conventional water-in-oil bacterins twice (1ml & 0.5ml) IM and chickens vaccinated twice (0.6ml then 0.3ml) IM with **Salmin Plus**

Efficacy

Salmin Plus provides high antibody titers



Reference: SR - Salm-235

Salmin Plus provides immunity against *S. Enteritidis*, *S. Typhimurium*, *S. Infantis*

Challenge trial:

Salmin Plus vaccinated SPF chickens exhibited reduced re-isolations of the challenge strain compared to non-vaccinated, challenged controls.

Chickens were vaccinated at 4 and 7 weeks of age and challenged with *S. Enteritidis*, *S. Typhimurium*, *S. Infantis* at 11 weeks of age. At 1, 3, 7, & 11 days post challenge the crop and cloacal swabs were cultured for re-isolation of the challenge strain. At 2 weeks post challenge, internal organs re-isolation was also performed.



Salmin Plus

Trivalent Salmonella bacterin

Salmin Plus is a Salmonella bacterin containing 4 strains from 3 serogroups: B, C, & D. It contains two strains of *S. Enteritidis*, one strain of *S. Typhimurium* and one strain of *S. Infantis* in a special adjuvant for a convenient IM 0.3 ml dose injection.

Salmin Plus Salmonella strains	Sero Group	Sero Group	Salmonella strains
<i>S. Typhimurium</i> PT (2(4+))	B	B	<i>S. Typhimurium</i> (vaccine strain) <i>S. Heidelberg</i> <i>S. Paratyphi B</i>
<i>S. Infantis</i> #122798	C	C	<i>S. Infantis</i> (vaccine strain) <i>S. Hadar</i> <i>S. Virchow</i> <i>S. Newport</i>
<i>S. Enteritidis</i> PT B3	D	D	<i>S. Enteritidis</i> (vaccine strain) <i>S. Pulorum</i> <i>S. Gallinarum</i>
<i>S. Enteritidis</i> PT C8	D		

Safety

Salmin Plus is safe to use for IM injection

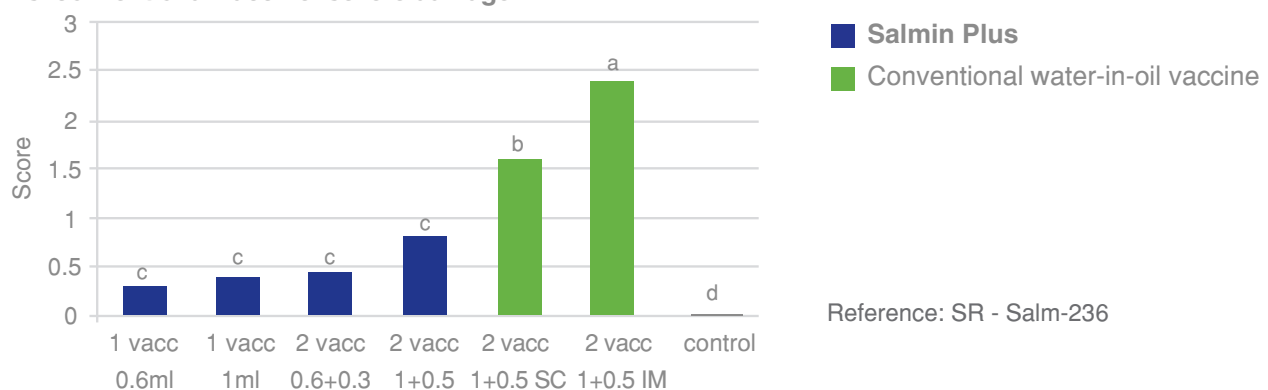
SPF chickens were vaccinated at 4 & 6 weeks of age with various vaccine volumes - representing overdose in each side of the breast. Scoring of the injection site was done at 9 weeks of age (scoring is a 0-5 system where 0 represents no damage and 5 the most severe damage to the tissue).

The results are shown below:

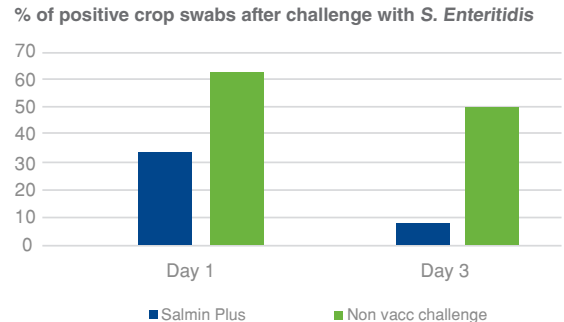
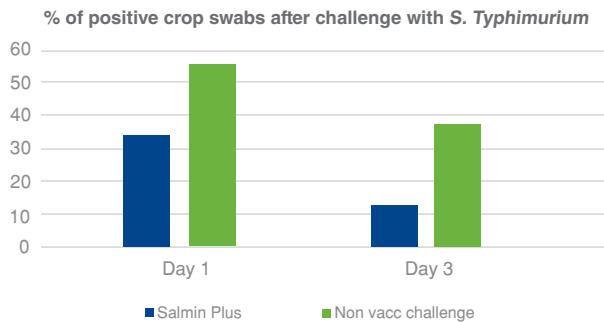
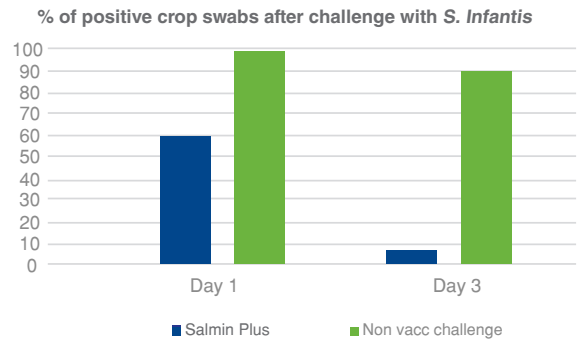
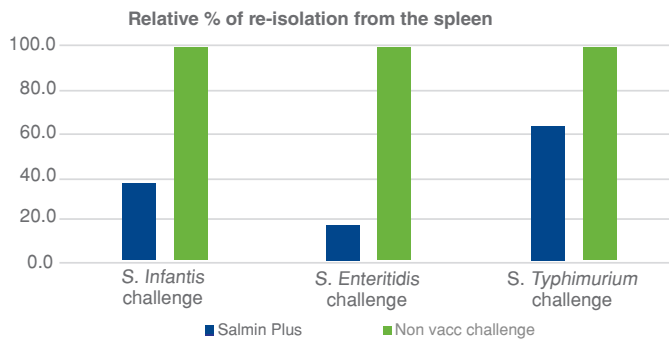
Group	Name	Route	Volume (ml)	Antigen amount CFU/dose	Damage score
1	Salmin Plus	IM	0.6	$10^{8.0}$	0.3 ^c
2			0.6+0.3		0.45 ^c
3			1	$10^{8.2}$	0.39 ^c
4			1+0.5		0.8 ^c
5	Water in oil Salmonella Vaccine	SC	1+0.5	$10^{8.6}$	1.61 ^b
6		IM	1+0.5		2.4 ^a
7	Control				0±0 ^d

Different letters refer to the statistical significance between results. A similar letter indicates results which are not statistically significant $P \leq 0.05$

Comparative scoring of tissue damage. Salmin Plus - negligible damage vs. conventional vaccine -severe damage



Birds vaccinated with Salmin Plus have significantly reduced numbers of Salmonella re-isolations after challenge



References: S. Infantis / SR-Salm-235, S. Typhimurium / SR-Salm-238, S. Enteritidis / SR-salm-239

Convenience

A unique formulation containing three of the major Salmonella groups known to affect public health. Salmin Plus' new formulation concentrates all three Salmonella antigens in a convenient 0.3 ml dose for intramuscular injection.

Benefits of Salmin Plus

Progeny protection

Reduces the risk of eggs and progeny contamination (vertical transmission)

Indications

Salmin Plus is indicated for the vaccination of Layer & Breeder pullets against *S. Enteritidis*, *S. Typhimurium*, *S. Infantis*

Reduced meat contamination

Salmin Plus helps to reduce poultry meat contamination thus human infection

Administration

Salmin Plus is administered by intramuscular injection. Warming the vaccine to room temperature immediately before application is recommended

Safe to use

Salmin Plus contains inactivated bacteria with no risk of infection to vaccinated birds

Storage

Store under refrigeration (+2°C to +8°C). Do not freeze

Reduces disease pressure

Salmin Plus reduces the infection pressure on poultry premises and the risk of reinfection of new flocks

Package

Bottles of 600ml (2,000 doses)

Vaccine strains

- S. Enteritidis - PT (B3)
- S. Enteritidis - PT (C8)
- S. Typhimurium - PT [2(+4)]
- S. Infantis - #122798

TAbic® family – TAbic® V.H., TAbic® IBVAR206, TAbic® IB Var, TAbic® H-120 and TAbic® M.B.

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