

# Porcilis® APP

To fight against the detrimental effects of porcine pleuropneumonia.

**Porcilis® APP** is an inactivated vaccine based on the outer membrane protein (OMP) and three toxoids (ApxI, ApxII and ApxIII) produced by *Actinobacillus pleuropneumoniae*.

## Why immunity against App toxins is important?

RTX toxins play a role in the evasion of the host's first line of defense and are essential for the development of clinical disease.



4 TOXINES

*Actinobacillus pleuropneumoniae* (App) produces four different toxins belonging to the RTX family, named ApxI, ApxII, ApxIII and ApxIV.



APXIV

ApxIV, is produced in vivo by all serovars: its contribution to the pathogenesis is not clear.



APXI, APXII, APXIII

The remaining RTX toxins are produced varying among serotypes.

Serovar	ApxI	ApxII	ApxIII
1	●	●	
2		●	●
3		●	●
4		●	●
5	●	●	
6		●	●
7		●	
8		●	●
9	●	●	
10	●		
11	●	●	
12		●	
13		●	
14	●		
15		●	●
16	●	●	
17		●	
18		●	



Ref.: Hongyao Lin, MSD Animal Health: Efficacy of the Porcilis® APP vaccine to induce antibodies against toxins APX I, II, III and OMP. Asian Pig Veterinary Society (APVS) Congress, Seoul. 2019

