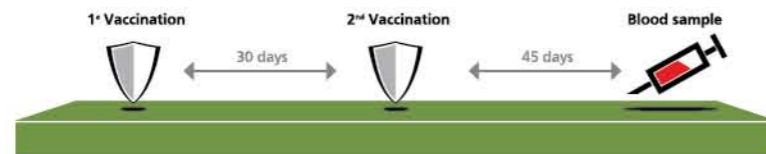


Comparative field study with cattle

A field trial was carried out to evaluate the antibody response induced by Covexin 10 in cattle. A group of 20 cattle with an average weight of just over 200 kg was vaccinated with Covexin 10 following the manufacturer's recommendations. In this study a second group of 21 calves from the same farm was vaccinated with another clostridial vaccine from another vaccine manufacturer (Product A). Blood samples were collected 45 days after vaccination and the antitoxin antibody levels were measured.

Trial design



Comparative antibody concentration

	Covexin 10	Product A
Antitoxin antibody, U/ml		
<i>C. novyi</i>	13.1	2.7
<i>C. sordellii</i>	10.7	0.7
<i>C. septicum</i>	1.7	0.7
<i>C. tetani</i>	17.1	14.6
<i>C. haemolyticum</i>	30	-
<i>C. perfringens</i> Type A	3.3	-
<i>C. perfringens</i> Type B/C	13.5	7.4
<i>C. perfringens</i> Type D	3.9	2.8
Antiflagellar antibody, U/ml		
<i>C. chauvoei</i>	0.5	0.3

Covexin 10 stimulates a strong immune response that is superior to the competitor's clostridial vaccine (Product A). Broader protection is achieved with Covexin 10 due to the inclusion of three additional clostridium species.

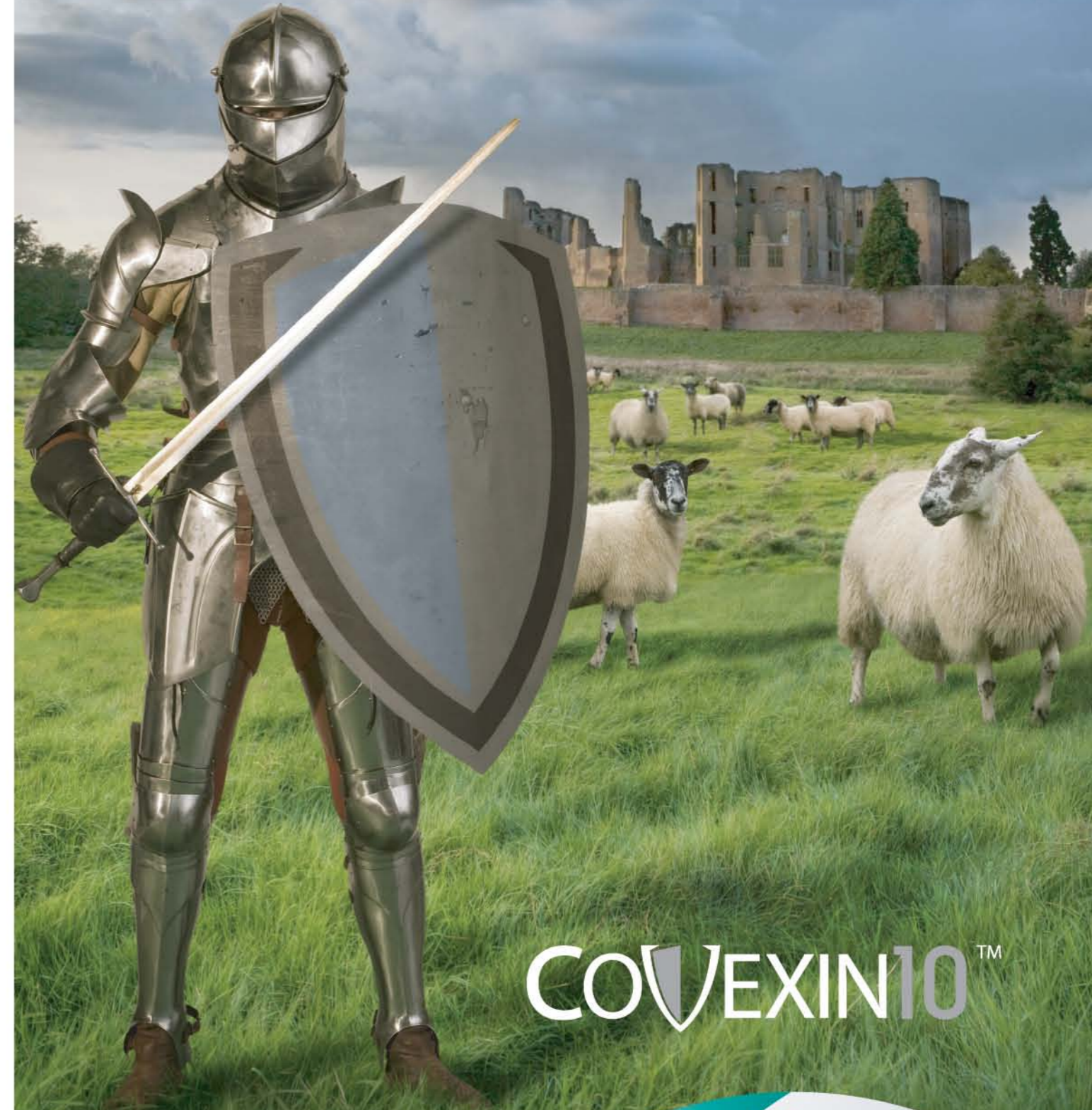


10 POINTS for complete protection

- Broad protection against 10 clostridial diseases.
- 12 months of duration of active immunity.
- 12 weeks of duration of passive immunity.
- Low dose volume.
- Simple vaccination protocol.
- It can be used from 2 weeks of age.
- Efficacious in the presence of maternally derived antibodies.
- For cattle and sheep.
- Low dose.
- From the clostridial vaccine experts.



EVER LET DOWN YOUR GUARD
AGAINST CLOSTRIDIAL DISEASES



COVEXIN10™

A new era of comprehensive clostridial protection

The recent identification of new pathogens responsible for clostridial disease indicated the need for a new generation of vaccines that would include all relevant organisms. Covexin 10 introduces a new era in comprehensive protection. With the inclusion of 10 different clostridial pathogens, Covexin 10 provides the broadest coverage against clostridial diseases.

- *C. perfringens* Type A
- *C. perfringens* Type B
- *C. perfringens* Type C
- *C. perfringens* Type D
- *C. chauvoei*
- *C. septicum*
- *C. haemolyticum*
- *C. novyi* Type B
- *C. sordellii*
- *C. tetani*

Higher potency

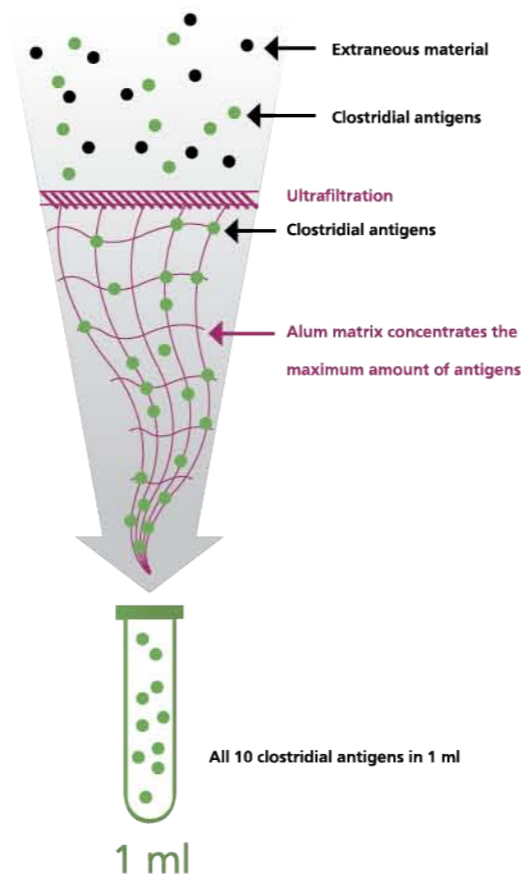
Covexin 10 provides high efficacy against a full range of life-threatening clostridium species. It delivers the potency required to induce a consistent, long-lasting immune response in animals. It does so without relying on an aggressive adjuvant or high volume dose that can compromise safety.

Unique purification process

The proprietary toxoid ultrafiltration process purifies the critical proteins produced during the clostridial fermentation process. Thanks to the extreme efficiency of this process, 10 highly protective clostridial antigens are concentrated in a volume of only 1 ml.

Smart antigen/adjuvant binding

The aluminium adjuvant included in the vaccine is precipitated in the presence of the toxoid combination. This technique overcomes the problem that derives from the divergent isoelectric points associated with the different clostridial toxins. The result is a kind of "smart binding" in which a well-defined alum matrix traps the maximum amount of antigens.



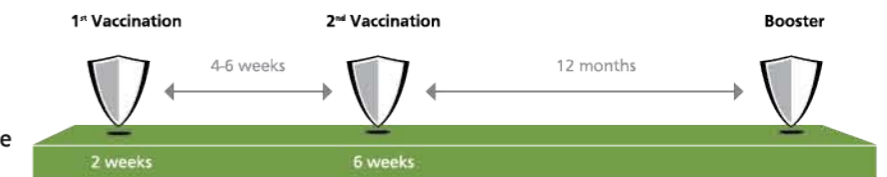
Easier vaccination schedule

Covexin 10 is proof that the most thorough protection against clostridial disease can also be thoroughly easy to administer. Covexin 10 simplifies operations thanks to its year-round, long-lasting protection, its suitability for early vaccination and low dose volume.

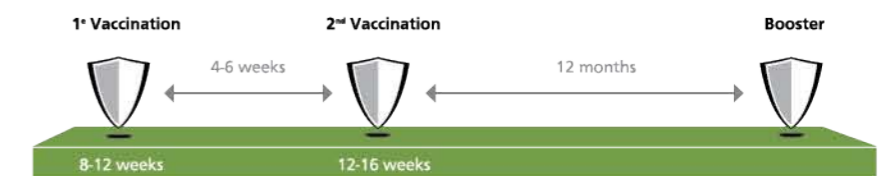
Covexin 10

- Can be used in cattle and sheep
- Constant low dose volume: Cattle (2 ml) and sheep (1 ml)
- Provides passive immunity that lasts for 8-12 weeks
- Allows vaccination of animals from a very young age (2 weeks)
- Efficacious in the presence of maternally derived antibodies
- Successfully bridges the gap between passive immunity and active immunity
- 12-month duration of immunity

Lamb and calf from unvaccinated ewe/cow



Lamb and calf from vaccinated ewe/cow



Pregnant ewe/cow

