

# Introducing

## Nobivac® Canine 1-DAPPvL<sub>2</sub>



Protecting precious bonds





# Nobivac<sup>®</sup> Canine 1-DAPPvL<sub>2</sub>

**Nobivac Canine 1** is a modified live vaccine for the immunization of healthy dogs against

1. Canine Distemper
2. Adenovirus Type 2
3. Infectious Canine Hepatitis
4. Parainfluenza
5. Parvovirus
6. Leptospirosis (L. canicola and L. icterohaemorrhagiae)

## Administration

Inject 1ml of rehydrated vaccine subcutaneously or intramuscularly at 6 weeks of age or older  
Repeat dosage at 2-4 weeks intervals until the dog is 12 weeks old  
A minimum of two 1ml doses are required for primary immunization  
Annual revaccination with 1 dose is recommended

\*Duration of immunity is at least 4 years for distemper, adenovirus (CAV1 and CAV2) and parvovirus.

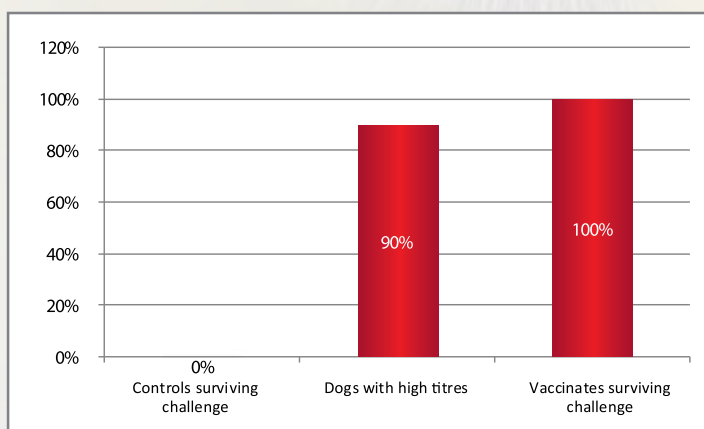
## Presentation

25x1d (Sterile Diluent included)

**Nobivac Canine 1** is a tried and tested vaccine for the core canine diseases

## Distemper Antigen

Onderstepoort-type strain, MLV	
• Proven efficacious and safe for over 50 years	A long history of effective protection
• Propagated on an established mammalian cell line	Offers improved consistency and availability and won't easily adapt to canine nervous tissue
• Induces high level of protection against distemper one year after vaccination	Supported by the MSD Animal Health Pet-Protect Guarantee
• Provided 90% protection against challenge 4.5 years after vaccination	Long-lasting protection
• Demonstrated not to cause immunosuppression	Use with confidence
• Primary vaccination may begin as early as 6 weeks. Last dose may be given at 12 weeks of age.	Convenient vaccination schedule





## Nobivac® Canine 1 4.5 year Duration of Immunity Challenge

- 90% of vaccinates protected against clinical signs of Distemper (CDV)
- 100% of vaccinates survived challenge with virulent CDV

### Parvovirus Antigen

<ul style="list-style-type: none"> <li>• Contains MLV canine parvovirus type 2b (CPV-2b), the most prevalent field strain of parvovirus (CPV-2b accounts for &gt;90% of all current parvovirus cases)</li> </ul>	√ Close to actual CPV field strain i.e. relevant antigen
<ul style="list-style-type: none"> <li>• Protects against all field strains currently seen: CPV-2c, CPV-2b, CPV-2a, CPV-2</li> </ul>	√ Provides broad protection
<ul style="list-style-type: none"> <li>• <b>High antigenic mass (titer), low passage vaccine</b></li> </ul>	
<ul style="list-style-type: none"> <li>• Effective in overriding maternal antibodies in young puppies as demonstrated by seroconversion and challenge studies</li> </ul>	√ Induces quick, strong immunity at early age
<ul style="list-style-type: none"> <li>• Provides excellent protection against challenge one year after vaccination</li> </ul>	√ Supported by the MSD Animal Health Pet-Protect Guarantee
<ul style="list-style-type: none"> <li>• Provides 100% protection against challenge with CPV 4.5 years after vaccination</li> </ul>	√ Long lasting protection
<ul style="list-style-type: none"> <li>• Primary vaccination may begin as early as 6 weeks. Last dose may be given at 12 weeks of age</li> </ul>	√ Convenient vaccination schedule
<ul style="list-style-type: none"> <li>• Provides excellent protection after single dose vaccination in naïve puppies</li> </ul>	



### CAV-2 Studies

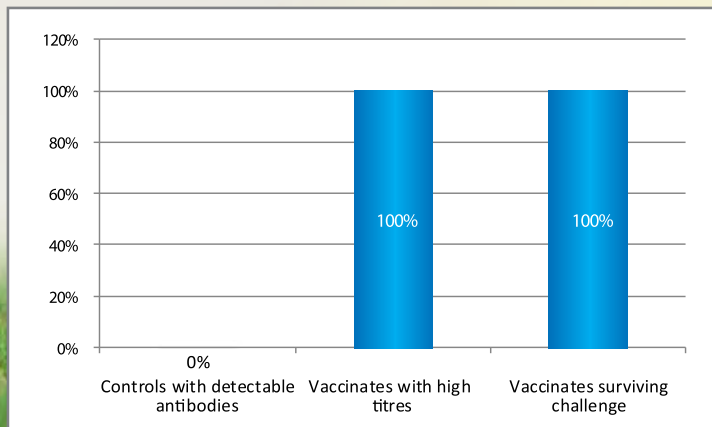
Immunogenicity versus infectious canine hepatitis (Canine Adenovirus-1; CAV-1)

Vaccinates	Controls
1 vaccine; 50% subcutaneously & 50% intramuscularly	No vaccine
Challenged 3 weeks post vaccination	Challenged at the same time as vaccinates
High serum neutralization titers	No detectable CAV-2 antibodies
Mild/inapparent clinical signs of infectious canine hepatitis (ICH)	Severe ICH: 1 control died, 2 developed blue-eye syndrome
Temperatures remained normal	Fever
Gained weight throughout the postchallenge period	Lost weight

*Vaccination with CAV-2 cross-protects against infectious canine hepatitis (ICH) caused by CAV-1*

### 4.5 year duration of immunity versus Infectious Canine Hepatitis (CAV-1)

Puppies were vaccinated with two doses of vaccine and compared with unvaccinated controls. Vaccine efficacy was determined by challenge with virulent CAV-1 4.5 years after vaccination





Vaccinates	Controls
1 vaccine; 50% subcutaneously & 50% intramuscularly	No vaccine
Challenged 3 weeks post vaccination	Challenged at the same time as vaccinates
High serum neutralization titers	No detectable CAV-2 antibodies
Mild/inapparent clinical signs of respiratory disease	Severe respiratory disease in all controls
Gained weight throughout the postchallenge period	No weight gain

## Adenovirus Type-2 Antigen

• Ditchfield strain, MLV	✓ Highly immunogenic strain.
• Crossprotects for CAV-1, so the vaccine protects against infectious canine hepatitis and respiratory disease.	✓ Broad CAV protection.
• Induces high level of protection against infectious canine hepatitis and CAV-2 respiratory disease one year after vaccination.	✓ Supported by MSD Animal Health Pet Project Guarantee.
• Provides 100% protection against challenge with CAV-2 4.5 years after vaccination.	✓ Use with confidence; long-lasting protection.
• Does not cause blue-eye syndrome or kidney damage as does CAV-1 vaccine.	✓ Does not cause lesions associated with CAV-1.
• Primary vaccination may begin as early as 6 weeks. Last dose may be given at 12 weeks of age.	✓ Convenient vaccination schedule.

## Parainfluenza Antigen

MLV	
• Challenge data show high level protection one year after vaccination.	✓ Highly immunogenic ✓ Provides protection against disease
• Decreases virulent virus shedding postchallenge.	✓ High local IgA levels able to neutralize virulent virus ✓ Significant reduction of shedding
• Protects against one component of canine cough.	
• Primary vaccination may begin as early as 6 weeks. Last dose may be given at 12 weeks of age.	✓ Convenient vaccination schedule

## Leptospirosis Antigen

• Contains two serovars: L. canicola and L. icterohaemorrhagiae	✓ Broad protection
• Bacterin (killed bacterial vaccine)	
• Lyophilized with DAPPv antigens	✓ Lyophilization increases stability
• Challenge data demonstrated a high level protection	✓ Stimulates effective immunity
• Primary vaccination may begin as early as 6 weeks. Last dose may be given at 12 weeks of age.	✓ Convenient vaccination schedule

## Why Use Nobivac Canine 1 DAPPvL<sub>2</sub>

- i) Nobivac is backed by field challenge studies and not serological studies
- ii) Established duration of immunity
- iii) Nobivac gives a broader protection on Parvovirus, covering all field strains (CPV-2c, CPV-2b, CPV-2a, CPV-2)
- iv) Excellent technical local support system
- v) Readily available with the backing of CKL Africa Ltd sales & distribution eco system
- vi) Effective on all classes of dogs; both indoor and working dogs