VANGUARD® DAPP

WHY SHOULD YOU USE VANGUARD® DAPP?

Key Vaccine Benefits

1
Effective in the presence of maternal antibodies (MA), **delivering early protection**

2
Causes rapid onset of immunity; therefore, **narrows the window of susceptibility**[1]

3
Effective against **CPV-2c,** giving protection against the predominant circulating strain[2]

HIGH TITER

High-titer vaccines contain a higher number of virus particles per dose[3]

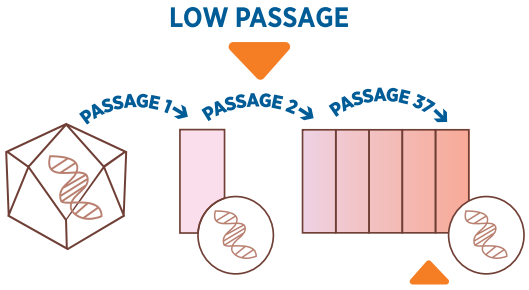
Canine parvovirus (CPV) particles per dose

- Parvovirus is a significant threat for puppies[2]
- CPV-specific MA titers may interfere with an active immune response, resulting in a **"window of susceptibility"**[1]

&

LOW PASSAGE

Passaging is the process of culturing and harvesting successive generations of viruses with gradual loss of pathogenicity/virulence[1]



Low-passage CPV is more immunogenic than higher-passage CPV[1]

- At low passage levels, the virus replicates well in tissue culture and in the dog, but is no longer pathogenic—an effective vaccine[1]
- At higher passage levels, the remaining virus population may be so well adapted to the tissue culture environment that they fail to replicate or immunize well in dogs[1]
- Vaccine parvovirus replication in the dog is essential in stimulating protective antibody production[1,2]

VANGUARD®
EXCEPTIONAL SCIENCE. DEPENDABLE SUPPORT.

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VANGUARD DAPP

Do you know the CPV particles per dose of other vaccines?

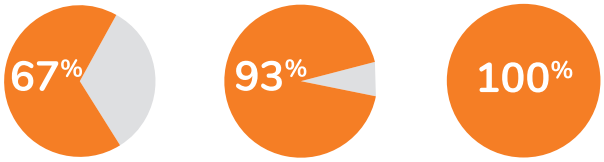
Vanguard DAPP—over 10,000,000 CPV particles per dose.*

High-titer, Low-passage Parvo Antigen

- Reduce the "window of susceptibility" that has been the major cause of CPV vaccination failure
- The high-titer, low-passage vaccine virus in Vanguard Plus CPV is highly immunogenic and capable of stimulating active immunity in the presence of maternal antibodies (MA)

In a 60-puppy study of (30) Vanguard Plus parvo vaccinates, all puppies seroconverted† within 21 days of a third vaccination at 12 weeks of age.[4]

Seroconversion of puppies following vaccination with Vanguard Canine Parvo

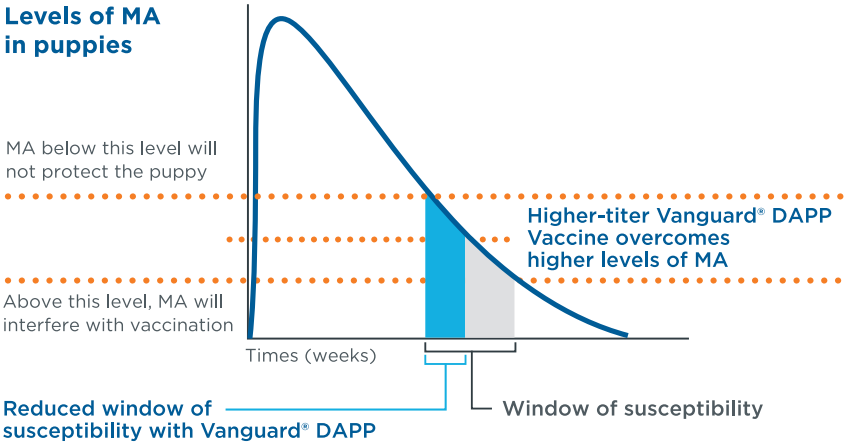


1st vaccination (6 weeks of age)

2nd vaccination (9 weeks of age)

3rd vaccination (12 weeks of age)

The effect of Maternal Antibodies[2]



*Zoetis minimum release titer. †4-fold increase in titer.

References: 1. Hoare CM, DeBouck P, Wiseman A. Immunogenicity of a low-passage, high-titer modified live canine parvovirus vaccine in pups with maternally derived antibodies. *Vaccine.* 1997;15(3):273-275. **2.** Wilson S, Illambas J, Siedek E, et al. Vaccination of dogs with canine parvovirus type 2b (CPV-2b) induces neutralising antibody responses to CPV-2a and CPV-2c. *Vaccine.* 2014;32(42):5420-5424. **3.** Burtonboy S, Charlier P, Hertoghs J, Lobmann M, Wiseman A, Woods S. Performance of high titer attenuated canine parvovirus vaccine in pups with maternally derived antibody. *Veterinary Record.* 1991;128:377-381. **4.** Coyne MJ. Seroconversion of puppies to canine parvovirus and canine distemper virus: A comparison of two combination vaccines. *J Am Anim Hosp Assoc.* 2000;36:137-142.

PETCARE IMMUNIZATION SUPPORT GUARANTEE

- Zoetis will cover reasonable diagnostic and treatment costs (up to $5,000) if a pet vaccinated with one of our vaccines contracts the corresponding disease
- See Petcare ISG handout or visit VaccineGuarantee.com for additional details

Veterinary Medical Information and Product Support (VMIPS)

- Our team of veterinarians, veterinary technicians, technical service specialists, and outcomes researchers has extensive experience and product knowledge and is available to assist you at **888-Zoetis1**

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