Bordetella Bronchiseptica Vaccine

Avirulent Live Culture

VANGUARD® B (IN)

PRODUCT DESCRIPTION: Vanguard B (IN) is for vaccination of healthy dogs and puppies at least 3 weeks of age or older as an aid in preventing kennel cough caused by *Bordetella bronchiseptica*. Vanguard B (IN) is composed of an avirulent live culture of *B. bronchiseptica* bacteria.

DISEASE DESCRIPTION: *B. bronchiseptica* is considered to be one of the primary etiologic agents of canine infectious tracheobronchitis. The vaccination of dogs with live avirulent *B. bronchiseptica* has been demonstrated to greatly reduce the severity of the disease. The advantages of Vanguard B (IN) include: 1) induction of good local immune response, 2) competitive inhibition of colonization of wild-type bacteria, 3) administration of a single dose, and 4) lack of administration site reaction.

SAFETY AND EFFICACY: The safety of Vanguard B (IN) was demonstrated by in-house and field safety studies. A total of 655 dogs were vaccinated according to label recommendations. One of the 655 vaccinates was reported to have intermittent sneezing for 2 days following vaccination. No treatment was required. None of the remaining 654 dogs had any adverse reaction to the vaccination.

A challenge model was used to evaluate the efficacy of Vanguard B (IN). The antigen blockage effect was also determined of a modified live canine parainfluenza virus (CPI) vaccine administered concurrently.

A total of 42 puppies 3–5 weeks old were used for the study. Twelve were vaccinated with a monovalent *B. bronchiseptica* vaccine, 20 were vaccinated with a *B. bronchiseptica*/CPI combination vaccine, and 10 were vaccinated with a CPI vaccine. The group receiving the monovalent CPI served as the control group for *B. bronchiseptica*

challenge and the group vaccinated with monovalent *B. bronchiseptica* vaccine served as the control group for the CPI challenge. The route of vaccination for all vaccines was intranasal. Blood and tracheal swabs were taken on the day of vaccination and weekly thereafter. Three weeks after vaccination, all dogs were challenged with virulent *B. bronchiseptica* and observed for clinical signs of tracheobronchitis (presence of coughing) for 2 weeks. None of the dogs vaccinated with *B. bronchiseptica* developed tracheobronchitis after challenge whereas the control dogs (CPI vaccinates) showed clinical signs which were frequently observed during the first week after challenge.

DIRECTIONS:

Preparation of the Vaccine: Rehydrate with the accompanying sterile diluent. Shake well and draw back into the syringe the required amount. Remove the needle from the syringe and attach the enclosed applicator tip. Use immediately.

DOSAGE AND ADMINISTRATION: Instill 0.5 mL of rehydrated vaccine into each nostril using a syringe with applicator tip. Annual revaccination is recommended.

PRECAUTIONS:

1. **This product is designed for intranasal use only with the enclosed applicator tip.**
2. **DO NOT VACCINATE DOGS PARENTERALLY.**
3. Store in the dark at 2°–7°C (35°–45°F).
4. Shake well after rehydration.
5. Burn containers and all unused contents.
6. In case of anaphylactoid reaction, administer epinephrine.

Technical inquiries should be directed to Zoetis Inc. Veterinary Services, (888) 963-8471 (USA), (800) 461-0917 (Canada).

For veterinary use only

U.S. Veterinary License No. 190

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