

Tech Specs

Elanco

Master Guard[®]

Master Guard[®]

Combination Vaccine For Respiratory and Reproductive Protection

Protection As Unique As Your Herd.

As a combination vaccine, Master Guard uses inactivated virus fractions to protect against Bovine Viral Diarrhea (BVD) Type 1 and 2 and Infectious Bovine Rhinotracheitis (IBR), while utilizing modified live virus (MLV) antigens to defend against Bovine Parainfluenza₃ (PI₃) and Bovine Respiratory Syncytial Virus (BRSV). Master Guard also delivers five-way *Leptospira* coverage plus cross-protection against *L. hardjo-bovis*. Master Guard can be used in pregnant cows at any stage of gestation or lactation.

MASTER GUARD 10 HB

INDICATIONS: This product has been shown to be effective for the vaccination of healthy cattle 5 months of age or older, including pregnant cows, against BVD Type 1 and 2, IBR, PI₃, and BRSV, and against *Leptospira borgpetersenii* serovar *hardjo-bovis* and *L. canicola*, *L. grippityphosa*, *L. hardjo-prajitno*, *L. icterohaemorrhagiae* and *L. pomona*. The duration of immunity has not been determined. For more information regarding efficacy and safety data, see productdata.aphis.usda.gov. This product contains BVD Type 1 and 2.

DIRECTIONS AND DOSAGE: Rehydrate the desiccated vial with accompanying diluent and shake well. Inject 3 mL subcutaneously or intramuscularly using aseptic technique. Repeat the dose in 14 to 28 days. The need for annual booster vaccinations has not been established for this product. The presence of maternal antibody is known to interfere with the development of active immunity in calves and additional boosters will be required in most young animals. For advice on revaccination frequency, consult your veterinarian. Do not mix with other products, except as specified on the label.

CAUTIONS: Fetal health risks associated with the vaccination of pregnant animals with this vaccine cannot be unequivocally determined during clinical trials for licensure. Appropriate strategies to address the risks associated with vaccine use in pregnant animals should be discussed with a veterinarian. Failure to follow label directions may result in abortions. Store at 35–46°F (2–8°C). DO NOT FREEZE. Use entire contents when first opened. Do not vaccinate within 21 days of slaughter. In case of human exposure, contact a physician. Inactivate unused contents before disposal. Allergic reactions may follow the use of vaccines; ANTIDOTE: Epinephrine. Contains gentamicin and thimerosal as a preservative.

VLN/PCN: 213/4469.20

PROVEN DEFENSE

- Effective prevention against BVD Type 1 and 2¹
- Provides a duration of immunity for IBR that lasts at least 196 days²
- The MLV BRSV fraction stimulates serum-neutralizing antibodies and cell-mediated immunity³
- Contains five-way *Leptospira* coverage plus *L. hardjo-bovis* cross-protection

PROTECTION WITHOUT PERFORMANCE IMPACT

- Master Guard has no significant impact on milk production in lactating Holsteins during the first 7 days post-vaccination⁴

CONVENIENT ADMINISTRATION

- Can be given to cows and heifers at any stage of gestation or lactation
- Can be administered in cattle five months or older and may be administered intramuscularly or subcutaneously

TECHNICAL DISEASE INFORMATION

The combined cost of Bovine Respiratory Disease (BRD)—including death loss, reduced performance, treatment, labor resources—makes it the costliest disease affecting cattle in the U.S.⁵ Weight gain and performance is often limited in calves with BRD and may have negative effects on long-term performance and herd profitability. Preventing BRD and associated co-infectors—such as BVD Type 1 and 2, as well as IBR—through effective vaccination can reduce the incidence of calf pneumonia and death loss. Vaccinating ahead of times of potential stress can be an effective prevention program.

Reproductive diseases caused by pathogens like leptospirosis are detrimental to the success and profitability of producers because of decreased reproductivity, weight loss, decreased milk production and performance, and sometimes death. Leptospirosis is widespread and considered one of the most infectious diseases of farm animals.

BOVINE VIRAL DIARRHEA (BVD)

BVD is often obscured or confused with other conditions of the respiratory disease complex. Clinical signs include fever, anorexia, coughing, depression, diarrhea and occasional lameness. BVD may be inapparent, chronic or a fatal mucosal disease. BVD may cause suppression of the immune system. Affected animals have increased susceptibility to secondary infections. BVD in pregnant animals may cause abortions or malformed and weak calves at birth. Chronic disease with ulcers on the alimentary tract is referred to as “Mucosal Disease” and is usually fatal.

INFECTIOUS BOVINE RHINOTRACHEITIS (IBR)

IBR is an acute respiratory disease. Signs of IBR may include elevated temperature, excessive nasal and ocular discharge, rapid breathing, coughing and depression. Reproductive problems including abortions have been observed.

BOVINE PARAINFLUENZA₃ (PI₃)

PI₃ infections may cause few noticeable signs. Disease signs caused by PI₃ virus generally appear within 14 days after shipment and arrival of calves at their destination. Signs are weakness, depression, watery to mucopurulent nasal discharge, fever, coughing and weight loss. PI₃ is a contributor to the BRD Complex. Antibodies are present in over 80% of young calves.

BOVINE RESPIRATORY SYNCYTIAL VIRUS (BRSV)

BRSV infections occur in dairy and beef cattle of all ages, including nursing calves. BRSV signs follow an incubation of 5 to 7 days. Infected calves and adult animals exhibit signs of acute respiratory disease that may include fever, coughing, rapid breathing, subcutaneous edema of the throat and neck, depression, nasal discharge, ocular discharge, anorexia, pulmonary edema and emphysema. BRSV may predispose cattle to secondary infections, particularly bacterial pneumonia. In an acute outbreak, sudden death has been reported. Enzootic pneumonia of dairy calves associated with BRSV may occur at 10 days of age. BRSV signs vary in severity but may rapidly progress to a crisis phase. Recovery of adult animals is rapid and usually uneventful.

Diagnosis is difficult both in the field and laboratory. After the animal exhibits signs of disease, the virus usually is not isolated. Paired serum samples may assist in determining existing herd infections. Surveys indicate BRSV antibodies are present in over 90% of calves in North America.

LEPTOSPIROSIS

Leptospirosis is widespread in the animal population of the United States and is considered one of the most infectious diseases of farm animals.

Humans can become infected either from animals with the disease or from an infective environmental source. In animals, the disease is known to cause reproduction disorders, loss of weight, decreased milk production and sometimes death. The economic losses suffered are very large. The disease can be caused by several specific leptospires.

Six important serovars have been identified and are available in this product: *L. canicola*, *L. grippityphosa*, *L. hardjo-prajitno*, *L. icterohaemorrhagiae*, *L. pomona* and *L. hardjo-bovis*.

Because specific serovar diagnosis is very difficult, and also due to the widespread nature of potential infection, it is recommended that all animals be vaccinated before introduction into the concentrated holding areas currently utilized on many premises. When infection is diagnosed, it is advisable to separate those animals showing disease signs and to vaccinate the remainder of the herd with Lepto Shield® 5 alone. The apparent effectiveness of Lepto Shield 5 will depend upon the number of animals exposed and incubating the disease at the time of vaccination. Vaccination cannot be expected to protect animals already in the incubating stages of the disease.

Serologic studies indicate widespread distribution of all of these causative agents.

To learn more about Master Guard® contact your herd health veterinarian, Elanco sales representative or technical consultant, or visit Elanco.us

The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.

¹ Elanco Animal Health. Data on file.

² Sibbel RL, Bass EP, Thomas PC. How long will a killed IBR vaccine protect against challenge? *Vet Med* 1988;83(1):90-92.

³ Ellis JA, Hassard LE, Morley PS. Bovine Respiratory Syncytial Virus-specific immune responses in calves after inoculation with commercially available vaccines. *JAVMA* 1995;206(3):345-361.

⁴ Elanco Animal Health. Data on file.

⁵ Griffin D. Economic impact associated with respiratory disease in beef cattle. *Vet Clin North Am Food Animal Pract* 1997;3:367-77.