Merck Animal Health
Cattle Vaccines
Protect your cattle and profitability.
Vaccines make good business sense.

Cattle vaccines from Merck Animal Health give you the power to get in front of profit-robbing disease. So instead of treating diseases, you can focus on producing healthy, profitable cattle.

Talk to your veterinarian today to determine which vaccines can help you run the most cost-efficient and profitable operation.
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<td>20/20 Vision® 7</td>
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<td>Piliguard® Pinkeye-1 Trivalent</td>
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A vaccine with this symbol is proven to cause fewer reactions. It won’t disrupt productivity and will help you see healthier cattle and higher profits.¹⁻⁵

¹ Effects of Vaccination with Vista® L5 SQ or Bovi-Shield GOLD® FP® L5 on Milk Production. 2010.
² Technical Reference 96-4: Evaluation of Injection-Site Blemishes Using Ultrasonography Following Administration of Two Commercial Multivalent Clostridial Vaccines.
³ Merck Veterinary Update: Post-Vaccinal Milk Response in Dairy Cows to Three Vaccines for the Control of Neonatal Diarrhea. 2007.
⁴ Spire MF. Once PMH® IN Endotoxin Load. 2015.
Respiratory Disease Prevention

Respiratory diseases are the most common and costly infections plaguing the North American cattle industry. The comprehensive vaccine lineup from Merck Animal Health can offer you the protection you need – for both your herd and your profits.

<table>
<thead>
<tr>
<th></th>
<th>IBR</th>
<th>PI3</th>
<th>BRSV</th>
<th>BVD Type 1</th>
<th>BVD Type 2</th>
<th>Mannheimia haemolytica</th>
<th>Pasteurella multocida</th>
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Vista®
The most complete respiratory protection available.

Vista® Once SQ
For the vaccination of healthy cattle 3 months of age or older.

Aids in the prevention of disease caused by:
- Infectious bovine rhinotracheitis (IBR)
- Bovine viral diarrhea (BVD) Type 2
- Bovine respiratory syncytial virus (BRSV)

Aids in the control of disease caused by:
- BVD Type 1
- Parainfluenza 3 (PI3)
- Mannheimia haemolytica
- Pasteurella multocida

Features:
- The only respiratory vaccine available offering avirulent-live protection against the two leading contributors to bacterial pneumonia: M. haemolytica and P. multocida
- Both viral and bacterial components of VISTA ONCE SQ are live: modified-live virus + avirulent-live bacteria
- Proven to have lower endotoxin levels than Bovi-Shield Gold One Shot®, Pyramid® 5 + Presponse® SQ and Titanium® 5 + PH-M®
- One-dose BRSV (no booster required)

Duration of Immunity
Duration of immunity (DOI) has been demonstrated to be at least one year for IBR and BVD Types 1 and 2 and at least 16 weeks for M. haemolytica and P. multocida. Reproductive DOI has been demonstrated to be at least 217 days for IBR and at least 206 days for BVD Types 1 and 2.

Dosage
2 mL administered subcutaneously to healthy cattle 3 months of age or older. For advice on revaccination frequency, contact your veterinarian.

Safety
Safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live IBR and BVD containing vaccines in this product line.

Supplied
10-dose, 50-dose

Vista® BVD CFP
Shown to be effective for the vaccination of healthy cattle against respiratory disease and fetal infection, including persistently infected calves due to bovine viral diarrhea (BVD) Type 1 and Type 2.

Duration of Immunity
Duration of immunity (DOI) has been demonstrated to be at least one year for BVD Types 1 and 2. Reproductive DOI has been demonstrated to be at least 206 days for BVD Types 1 and 2.

Dosage
2 mL administered subcutaneously. For advice on revaccination frequency, contact your veterinarian.

Safety
Safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live infectious bovine rhinotracheitis (IBR) and BVD containing vaccines in this product line.

Supplied
10-dose, 50-dose
**Vista® 5 SQ**

For the vaccination of healthy cattle 3 months of age or older.

Aids in the prevention of disease caused by:
- Infectious bovine rhinotracheitis (IBR)
- Bovine viral diarrhea (BVD) Type 2
- Bovine respiratory syncytial virus (BRSV)

As an aid in the control of disease caused by:
- BVD Type 1
- Parainfluenza 3 (PI3)

**Duration of Immunity**

Duration of immunity (DOI) has been demonstrated to be at least one year for IBR and BVD Types 1 and 2. Reproductive DOI has been demonstrated to be at least 217 days for IBR and at least 206 days for BVD Types 1 and 2.

**Dosage**

2 mL administered subcutaneously to healthy cattle 3 months of age or older. For advice on revaccination frequency, contact your veterinarian.

**Safety**

Safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live IBR and BVD containing vaccines in this product line.

**Supplied**

10-dose, 50-dose

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**Once PMH® SQ and Once PMH® IN**

*Mannheimia haemolytica and Pasteurella multocida prevention you can’t find anywhere else.*

**Once PMH® SQ**

The only avirulent-live, dual-action bacterial pneumonia vaccine available for cattle 3 months of age or older.

Aids in the control of respiratory disease caused by:
- *Mannheimia haemolytica*
- *Pasteurella multocida*

**Duration of Immunity**

Duration of immunity (DOI) has been demonstrated to be at least 16 weeks for *M. haemolytica* and *P. multocida*.

**Dosage**

2 mL administered subcutaneously to healthy cattle 3 months of age or older. For advice on revaccination frequency, contact your veterinarian.

**Supplied**

10-dose, 50-dose

*VISTA ONCE SQ and ONCE PMH SQ provide 16-week protection against *M. haemolytica* and *P. multocida* – the only products with duration claims against these respiratory bacteria.

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**Once PMH® IN**

The first and only intranasal vaccine that delivers dual bacterial pneumonia protection for healthy cattle starting as young as 1 week of age.

Aids in the prevention of disease caused by *Pasteurella multocida*.
Aids in the control of disease caused by *Mannheimia haemolytica*.

**Features:**
- Shown to have a lower endotoxin load compared to other bacterial respiratory vaccines on the market`
- No injection site due to intranasal route of administration
- Provides protection against two of the leading bacterial causes of bovine respiratory disease (BRD) while optimizing post-vaccination performance`

**Dosage**

2 mL administered intranasally into one nostril or 1 mL into each nostril for a 2 mL dose.

**Supplied**

10-dose, 50-dose, 25x1-dose

`02/15 BV-VST-51134-2-VISTA-ENDOTOXIN-LOAD.
**Nasalgen®**

Protect your whole herd from infectious bovine rhinotracheitis and parainfluenza 3.

**Nasalgen® IP**

Safe for use in pregnant cows or in calves nursing pregnant cows. Calves vaccinated under 5 months of age should be revaccinated at 5 months of age or weaning.

Aids in the prevention of disease caused by:
- Infectious bovine rhinotracheitis (IBR)
- Parainfluenza 3 (PI3)

**Features:**
- Safe in all classes of cattle, including pregnant cows, pregnant heifers and nursing calves
- Provides rapid onset of protection
- Stimulates interferon response providing nonspecific antiviral activity to aid in protection against a variety of airborne pathogens
- Stimulates local production of antibodies at the site where infectious pathogens enter the respiratory system – the mucosal lining of the nasal cavity
- Stimulates active immunity in the face of maternal antibodies
- No temperature sensitivity issues that would negatively impact replication once administered to cattle

**Dosage**

2 mL administered intranasally into one nostril or 1 mL into each nostril for a 2 mL dose.

**Supplied**

10-dose, 50-dose

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**Nasalgen® 3**

Safe for use in pregnant cows and in calves nursing pregnant cows. This product has been shown to be effective for the vaccination of calves 1 week of age or older against infectious bovine rhinotracheitis (IBR), bovine respiratory syncytial virus (BRSV) and parainfluenza 3 (PI3).

**Features:**
- Strong, early response for powerful, long-lasting protection
- Mimics natural exposure to the most common causes of pneumonia for an effective immune response
- Unique blue shadow for confident administration
- Designed with an IBR that is not temperature-sensitive, allowing for replication and effective prevention of pneumonia in any situation
- Helps operations meet Beef Quality Assurance standards

**Duration of Immunity**
- 11 weeks: BRSV
- 3 months: PI3
- 6½ months: IBR

The 6½-month duration of immunity (DOI) against IBR provides longer-lasting protection than the competition.

**Dosage**

2 mL administered intranasally into one nostril.

**Supplied**

1-dose, 10-dose, 50-dose

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6 Based on product labels.
Clostridial Disease Prevention

Naturally found in soil and the intestines of cattle, clostridial organisms can cause unexpected mortality to a herd in the form of blackleg and other fatal diseases. Protect your herd’s health and your profits with a range of cattle friendly vaccines from Merck Animal Health.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>C. chauvoei</th>
<th>C. septicum</th>
<th>C. haemolyticum</th>
<th>C. novyi Type B</th>
<th>C. septicum</th>
<th>C. perfringens Type C</th>
<th>C. perfringens Type D</th>
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**Vision® 7**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium chauvoei* (Blackleg)
- *C. septicum* (Malignant edema)
- *C. novyi* Type B (Black disease)
- *C. sordellii*
  - *C. perfringens* Types C and D (Enterotoxemia)

**Dosage**

2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. Annual revaccination is recommended.

**Supplied**

10-dose, 50-dose, 250-dose

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**Vision® 7 SOMNUS**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium chauvoei* (Blackleg)
- *C. septicum* (Malignant edema)
- *C. novyi* Type B (Black disease)
- *C. sordellii*
  - *C. perfringens* Types C and D (Enterotoxemia)
  - *Haemophilus somnus*

**Dosage**

2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. Annual revaccination is recommended.

**Supplied**

10-dose, 50-dose, 250-dose

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**Vision® 8**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium chauvoei* (Blackleg)
- *C. septicum* (Malignant edema)
- *C. haemolyticum* (Red Water)
- *C. novyi* Type B (Black disease)
- *C. sordellii*
  - *C. perfringens* Types C and D (Enterotoxemia)

**Dosage**

2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. In animals subject to reexposure to *C. haemolyticum*, revaccinate every five to six months. Annual revaccination is recommended.

**Supplied**

10-dose, 50-dose
**Vision® 8 SOMNUS**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium chauvoei* (Blackleg)
- *C. septicum* (Malignant edema)
- *C. haemolyticum* (Red Water)
- *C. novyi* (Black disease)
- *C. sordellii*
- *C. perfringens* Types C and D (Enterotoxemia)
- *Haemophilus somnus*

**Dosage**
2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. In animals subject to reexposure to *C. haemolyticum*, revaccinate every five to six months. Annual revaccination is recommended.

**Supplied**
10-dose, 50-dose

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**Vision® CD**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium perfringens* Types C and D (Enterotoxemia)

**Dosage**
2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. Annual revaccination is recommended.

**Supplied**
250-dose

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**Vision® CD-T**

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium perfringens* Types C and D (Enterotoxemia)
- *C. tetani* (Tetanus)

**Dosage**
2 mL administered subcutaneously followed by another 2 mL injection three to four weeks later. Annual revaccination is recommended.

**Supplied**
50-dose
Cavalry® 9
Broad, powerful protection against nine clostridial diseases, including tetanus. Providing demonstrated superior immune response with low tissue reactivity.

Cavalry® 9
For the vaccination of healthy cattle 3 months of age and older.

Aids in the prevention of disease caused by:
- Clostridium chauvoei (Blackleg)
- C. septicum (Malignant edema)
- C. novyi Type B (Black disease)
- C. haemolyticum (Red Water)
- C. sordellii
- C. tetani (Tetanus)
- C. perfringens Types C and D (Enterotoxemia)

Dosage
2 mL injection administered subcutaneously followed by a second 2 mL dose given three weeks later. Revaccinate annually with 2 mL prior to periods of extreme risk or parturition.

Supplied
10-dose, 50-dose, 125-dose

Covexin® 8
Protect calves and pregnant cows against eight clostridial diseases with one easy-to-use, highly effective vaccine.

Covexin® 8
For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- Clostridium chauvoei (Blackleg)
- C. septicum (Malignant edema)
- C. novyi Type B (Black disease)
- C. haemolyticum (Red Water)
- C. perfringens Types C and D (Enterotoxemia)
- C. tetani (Tetanus)

Dosage
5 mL injection administered subcutaneously or intramuscularly followed by a second 5 mL dose given six weeks later. Revaccinate annually with 5 mL dose prior to periods of extreme risk or parturition. Calves vaccinated under 3 months of age should be revaccinated at weaning or 4 to 6 months of age.

Supplied
10-dose, 50-dose, 125-dose
Breeding stock and their offspring are critical to the success of your operation. Protect both with the reproductive lineup of vaccines from Merck Animal Health.

<table>
<thead>
<tr>
<th></th>
<th>IBR</th>
<th>PI3</th>
<th>BRSV</th>
<th>BVD Type 1</th>
<th>BVD Type 2</th>
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<th>L. monocytogenes</th>
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*L. hardjo protection includes the L. borpgeterseni serovar hardjo bovis.*
Vista® 5 L5 SQ

For the vaccination of healthy cows and heifers prior to breeding:

Aids in the reduction of abortion caused by infectious bovine rhinotracheitis (IBR).

Aids in the prevention of fetal infection, including persistently infected calves caused by bovine viral diarrhea (BVD) Type 1 and Type 2.

Aids in the prevention of disease caused by:
- IBR
- BVD Type 2
- Bovine respiratory syncytial virus (BRSV)

Aids in the control of disease caused by:
- BVD Type 1
- Parainfluenza 3 (PI3)

Aids in the prevention of leptospirosis caused by:
- *Leptospira canicola*
- *L. grippotyphosa*
- *L. hardjo* (including the *L. borgpetersenii* serovar hardjo bovis)
- *L. icterohaemorrhagiae*
- *L. pomona*

Aids in the prevention of urinary shedding of *L. hardjo* organisms.

Duration of Immunity

Reproductive duration of immunity (DOI) demonstrated to be at least 217 days for IBR and at least 206 days for BVD Types 1 and 2. Respiratory DOI has been demonstrated to be at least 182 days for IBR, at least 206 days for BVD Type 1 and at least 200 days for BVD Type 2.

Dosage

2 mL administered subcutaneously 14 to 60 days prior to breeding to healthy cattle 6 months of age or older. Annual revaccination is recommended. For advice on revaccination frequency, contact your veterinarian.

Safety

Safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live IBR and BVD containing vaccines in this product line.

Supplied

5-dose, 10-dose, 50-dose

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Vista® 5 VL5 SQ

For the vaccination of healthy cows and heifers prior to breeding.

Aids in the reduction of abortion caused by infectious bovine rhinotracheitis (IBR).

Aids in the prevention of fetal infection, including persistently infected calves caused by bovine viral diarrhea (BVD) Type 1 and Type 2.

Aids in the prevention of disease caused by:
- IBR
- BVD Type 2
- Bovine respiratory syncytial virus (BRSV)

Aids in the control of disease caused by:
- BVD Type 1
- Parainfluenza 3 (PI3)

Aids in the reduction of infertility caused by *Campylobacter fetus*.

Aids in the prevention of leptospirosis caused by:
- *Leptospira canicola*
- *L. grippotyphosa*
- *L. hardjo* (including the *L. borgpetersenii* serovar hardjo bovis)
- *L. icterohaemorrhagiae*
- *L. pomona*

Aids in the prevention of urinary shedding of *L. hardjo* organisms.  

Continued on next page.
**Duration of Immunity**
Reproductive duration of immunity (DOI) demonstrated to be at least 217 days for IBR and at least 206 days for BVD Types 1 and 2. Respiratory DOI has been demonstrated to be at least 182 days for IBR, at least 206 days for BVD Type 1 and at least 200 days for BVD Type 2.

**Dosage**
2 mL administered subcutaneously 14 to 60 days prior to breeding healthy cattle 6 months of age or older. Annual revaccination is recommended. For advice on revaccination frequency, contact your veterinarian.

**Safety**
Safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live IBR and BVD containing vaccines in this product line.

**Supplied**
10-dose, 50-dose

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**L5 SQ**
For the vaccination of healthy cattle 6 months of age and older.

Aids in the prevention of leptospirosis caused by:
- Leptospira canicola
- L. grippotyphosa
- L. hardjo
- L. borgpetersenii serovar hardjo bovis
- L. icterohaemorrhagiae
- L. pomona

Aids in prevention of urinary shedding of L. hardjo organisms.

**Dosage**
Shake vial well and inject 2 mL subcutaneously to healthy cattle 6 months of age and older. If packaged with VISTA 5 SQ, refer to carton for complete directions. Annual revaccination is recommended.

**Supplied**
10-dose, 50-dose

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**VL5 SQ**
For the vaccination of healthy cattle.

Aids in the prevention of disease caused by five strains of leptospirosis, including hardjo bovis.

Aids in preventing urinary shedding of Leptospira hardjo organisms.

Aids in the control of reproductive diseases caused by Campylobacter fetus.

**Dosage**
Shake vial well and inject 2 mL subcutaneously 14 to 60 days prior to breeding. If packaged with VISTA 5 SQ, refer to carton for complete directions. Annual revaccination is recommended.

**Supplied**
10-dose, 50-dose
Mastitis Prevention

Your cow production and operation profitability take a direct hit if coliform mastitis takes hold. Vaccinate before it impacts your milk string.

Bovilis® J-5

Intended for use in healthy dairy cattle as an aid in the reduction of mastitis due to *Escherichia coli*.

**Bovilis® J-5**

For the vaccination of healthy cattle.

Aids in the reduction of mastitis due to *Escherichia coli*.

**Dosage**

Shake well and administer a 5 cc dose subcutaneously. Three doses are recommended at four to six week intervals.

Do not vaccinate within two weeks of parturition.

**Supplied**

50-dose
Scours Prevention

Calf scours – neonatal diarrhea – exerts a costly toll on the livestock industry. While the bacteria, viruses and parasites that cause the disease are a part of livestock production, scours can be prevented. For exceptional protection, turn to vaccines from Merck Animal Health.

Guardian®

Provide real-world protection against the viruses often responsible for calf scours as well as the broadest clostridium protection ever brought to market.

Guardian®

For the vaccination of healthy cattle.

Aids in the prevention of neonatal calf diarrhea caused by:

- *Escherichia coli* pilus Type K99
- Bovine Group A Serotype G6 rotaviruses
- Enterotoxemia caused by *Clostridium perfringens* Types C and D

Aids in the control of neonatal calf diarrhea caused by:

- Bovine coronavirus

Features:

- The only scours vaccine administered to pregnant cows and heifers that includes both Coronavirus Type 1 and Type 3
- Beef Quality Assurance friendly: labeled for subcutaneous administration; other commercially available maternally administered scours vaccines are labeled for intramuscular administration
- Low incidence of injection site reactions (lumps and bumps)

Dosage

2 mL injected subcutaneously three months prior to calving followed by a second 2 mL injection three to six weeks later. For subsequent calvings, revaccinate with a single 2 mL dose five to seven weeks before calving.

Supplied

10-dose, 50-dose

1Guardian product label.
Bovilis® Coronavirus

The only intranasal vaccine that helps prevent calf scours by reducing the enteric disease caused by bovine coronavirus – a major cause of diarrhea in young calves and winter dysentery in dairy cows that has been linked to early onset bovine respiratory disease (BRD).

For the vaccination of healthy calves.

Aids in the prevention of enteric disease caused by bovine coronavirus.

Features:
- Safe for use in calves as young as 1 day old
- Efficacy demonstrated in calves 3 days of age and older
- Low-stress route of administration
- Four-day onset of immunity
- Safe for use in colostrum-fed calves

Dosage
Administer 2 mL intranasally.

Supplied
10-dose, 50-dose, 25x1-dose

1Bovilis Coronavirus: safety and field trials.
3Bovilis Coronavirus: onset of protective immunity presentation.
Pinkeye Prevention

Pinkeye causes pain, stress and weight loss in cattle. If your cattle go blind or develop clouded eyes, your operation’s profitability will take an additional hit. Prevent pinkeye before it blindsides your ROI.

20/20 Vision® 7

For the vaccination of healthy cattle.

Aids in the prevention of disease caused by:
- *Clostridium chauvoei* (Blackleg)
- *C. septicum* (Malignant edema)
- *C. novyi* (Black disease)
- *C. sordellii*
- *C. perfringens* Types C and D (Enterotoxemia)
- *Moraxella bovis* (Pinkeye)

**Dosage**
2 mL injection administered subcutaneously followed by a second 2 mL dose given three to four weeks later.

**Supplied**
10-dose, 50-dose

Piliguard® Pinkeye-1 Trivalent

For the vaccination of healthy cattle.

Aids in the control of pinkeye associated with infection by *Moraxella bovis* (pinkeye).

**Dosage**
2 mL administered subcutaneously or intramuscularly into the neck three to six weeks prior to onset of pinkeye season. Annual revaccination is recommended.

**Supplied**
10-dose, 50-dose
Prevention is the best medicine.

Protect your cattle and profits from the production and monetary cost of preventable illness. Speak with your veterinarian to guard your cattle and profit margins with the help of cattle vaccines from Merck Animal Health.

A comprehensive lineup of protection you can count on is another way Merck Animal Health Works for you.
Good protection is about what you don’t see.

Vaccines proven to cause fewer reactions can help you see healthier cattle and higher profits.

With vaccines that won’t disrupt productivity, you’re going to like what you see. Just one more way Merck Animal Health Works for you.

See how fewer reactions can help your herd at CattleFriendlyVaccines.com.

1. Effects of Vaccination with Vista® 5 L5 SQ or Bov-Shield GOLD® FP® L5 on MSK Production. 2010.