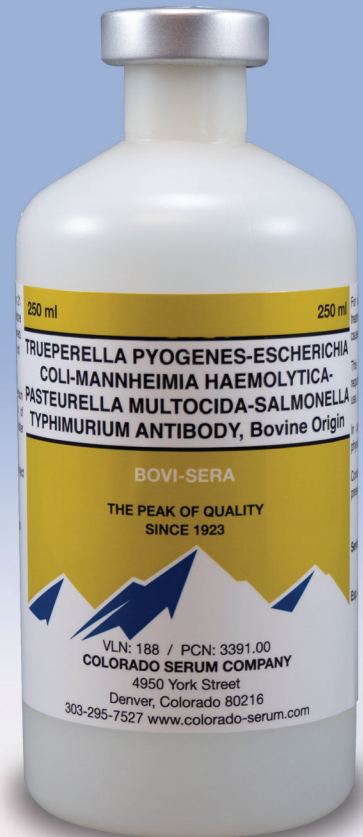


BOVI-SERA

SERUM ANTIBODY FOR CALVES, CATTLE AND SHEEP

BOVI-SERA is a serum antibody product produced and distributed by Colorado Serum Company for use against a variety of livestock diseases. BOVI-SERA is prepared from the blood of cattle hyperimmunized with *Trueperella pyogenes*, *Escherichia coli* (including K-99), *Mannheimia haemolytica* Types 1 and 2, *Pasteurella multocida* Type A and *Salmonella typhimurium*. Due to the hyperimmunization procedures, the serum recovered at the end of processing contains high levels of antibodies directed at the aforementioned organisms. The antibodies contained within BOVI-SERA aid in the treatment and prevention of these mentioned bacterial diseases.



Also available in 20 and 1,000 ml sizes



COLORADO VETERINARY
PRODUCTS

THE PEAK OF QUALITY
SINCE 1923

303-295-7527
www.colorado-serum.com

BACTERIAL DISEASES INFORMATION

The bacteria for which BOVI-SERA is developed may cause a wide variety of diseases in calves, cattle and sheep:

ORGANISM	SPECIES	DISEASE
<i>Trueperella pyogenes</i>	Cattle	- Abscesses in lungs, udder and joints
	Sheep	- Chronic purulent pneumonia and joint infections
<i>Mannheimia haemolytica</i> Types 1 and 2	Cattle	- Major component of bovine respiratory disease complex and septicemia
	Sheep	- Pneumonia and septicemia
<i>Pasteurella multocida</i> Type A	Cattle	- Pneumonia and hemorrhagic septicemia
	Sheep	- Pneumonia and hemorrhagic septicemia
<i>Escherichia coli</i> Including K-99	Cattle	- Enteric infections, mastitis and septicemia
	Sheep	- Enteric infections and septicemia
<i>Salmonella typhimurium</i>	Cattle	- Enteric infections, abortions, mastitis and septicemia
	Sheep	- Abortions

WHEN TO ADMINISTER

BOVI-SERA can be administered to calves, cattle and sheep at any age to prevent or treat any of the bacterial diseases previously listed.

As a preventative, BOVI-SERA should be administered immediately prior to a suspected disease outbreak. The prevention provided by BOVI-SERA will last approximately 7 to 21 days, depending on the species of animal in which BOVI-SERA is injected and the level of bacterial disease exposure. As prevention wanes, due to time, BOVI-SERA can be re-administered to increase the measure of prevention.

As a treatment, BOVI-SERA can be administered to aid in the treatment of bacterial diseases previously listed. Treatment with BOVI-SERA can be repeated as needed and can be used in conjunction with other treatments, i.e. antibiotics. BOVI-SERA does not interfere with or leave a residue in lactating animals. BOVI-SERA may be used on pregnant animals.

BOVI-SERA WILL AID IN

TREATMENT OF SCOURS:

Many times *E. coli* or *S. typhimurium* infections start out as scours, but due to damage to the enteric lining, the bacteria can leave the GI tract and infect other parts of the body. A serum antibody can assist the body in battling this infection.

TREATMENT OF PNEUMONIA:

Pneumonia secondary to *M. haemolytica* and *P. multocida* can be sometimes difficult to overcome with antibiotics alone and the use of a serum antibody could be the difference between treatment success and failure.

PREVENTION OF SHIPPING FEVER:

Treatment with BOVI-SERA prior to shipping will increase the level of antibodies to *M. haemolytica* and *P. multocida*, two bacteria commonly associated with shipping fever.

MORE ON SERUM ANTIBODIES

High levels of serum antibodies can be used to treat various conditions. Newborn calves and lambs which did not receive adequate amounts of colostrum, or poor quality colostrum, are deficient in antibodies, specifically IgG. If this problem is not detected until after the first 24 hours of life, supplying the newborn with additional colostrum will not be beneficial. To illustrate the occurrence of this situation, the USDA conducted a survey of dairy operations and measured the IgG levels of 1 to 3 day old calves. Surprisingly, over 40% of these dairy calves had IgG levels less than 1,000 mg/dl (levels less than 1,000 mg/dl have been associated with increased disease incidence).

To combat this situation, plasma or serum high in antibodies can be administered systemically to booster the newborn's level of antibodies (IgG).

For specific management recommendations, it is suggested that producers consult with a veterinarian before instituting a prevention or control program.

CORRECT ADMINISTRATION

1. RESTRAIN THE ANIMAL

Be sure the animal can't jump or move excessively.

2. SELECT THE BEST INJECTION SITE

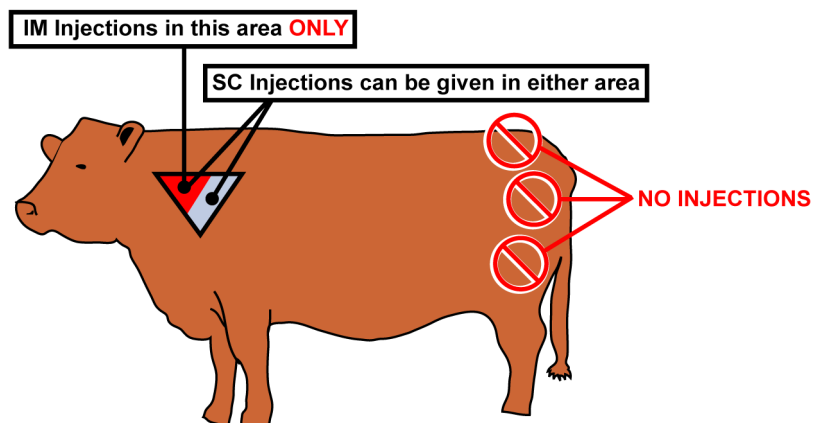
Subcutaneous (SC) injections are the preferred method, but intramuscular (IM) injections can also be used. SC injections should be made along the side of the neck or behind a foreleg using the tented technique (grabbing a loose fold of skin between the thumb and forefinger and slipping a needle under the fold). IM injections should be made in the side of the neck. Multiple sites should be used for large dosages.

3. USE THE RIGHT-SIZED NEEDLE

A 16 to 18 gauge, 1/2" to 3/4" needle is preferred for SC injections. A 16 to 18 gauge, 1 1/2" needle is ideal for IM injections in the neck. A 16 to 18 gauge, 1" needle is best for IM injections in a light weight animal.

4. SELECT THE PROPER INJECTION TECHNIQUE

After drawing the product into the syringe first check for an air bubble in the syringe or needle and eliminate if present. After inserting the needle into the animal, pull back on the syringe to be sure that there is no blood present. Then empty the syringe and wait a second before withdrawing the needle.



TRUEPERELLA PYOGENES-ESCHERICHIA COLI-MANNHEIMIA
HAEMOLYTICA-PASTEURELLA MULTOCIDA-SALMONELLA
TYPHIMURIUM ANTIBODY, Bovine Origin

BOVI-SERA

VLN: 188 / PCN: 3391.00

AVAILABLE IN
20, 250, and 1,000 ml sizes



INDICATIONS:

For use as an aid in the prevention and treatment of enteric and respiratory conditions caused by the microorganisms named.

This product was licensed prior to the requirement to establish a minimum age for use. Safety in pregnant animals is unknown.

DIRECTIONS:

Do not vaccinate within 21 days before slaughter. Shake well before use. Use entire contents when first opened. Store at 2-8°C. Do not freeze. Do not mix with other products.

PRECAUTIONS:

Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Contains thimerosal as a preservative.

In case of human exposure, contact a physician.

DOSAGE & ADMINISTRATION:

Inject subcutaneously or intramuscularly.

PREVENTION:

Calves: 20-40 ml - as soon after birth as possible.

Cattle: 50-75 ml

Sheep: 10-15 ml

TREATMENT:

Calves: 40-100 ml

Cattle: 75-150 ml

Sheep: 20-40 ml

Administer at 12-24 hour intervals until improvement is noted.



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