

Michael D. Piontkowski, DVM  
Senior Staff Veterinarian  
Technical Service

## Serum Antibody Products

Serum antibody products are as the name implies, derived from serum, the fraction of whole blood that contains the disease-fighting proteins known as antibodies. Antibodies are produced by normal animals in response to an antigen (in our case, bacteria or bacterial toxins) and are very specific for that antigen. An antigen, in the presence of its specific antibodies is destroyed or neutralized. The end result is an animal immune to that antigen. One way to produce antibodies (immunity) is to vaccinate, but that takes time. An alternate method to produce immunity is to provide the actual antibodies in a ready-to-use format, or a serum antibody product.

Like the cavalry unit that storms over the hill to save the day, a serum antibody product provides immediate treatment or prevention of a specific threat, like bacteria or a toxin capable of causing disease in the animal. This type of immunity is known as passive immunity. Colostrum is another example of passive immunity as opposed to active immunity produced by vaccines that require a minimum of two to four weeks to produce an effective immunity. Active immunity is like the soldiers holding the fort and always ready to mobilize against an enemy threat.

Advantages of a serum antibody product are of course its immediate response. It can be used for treatment or prevention (vaccines are for prevention). Bacterial resistance is not an issue and there are no drug residues. It will not interfere with antibiotic therapy. Derived from live animals, it is a natural product (thimerosal and phenol are added as preservatives).

Serum antibody products can be used as an immediate, but temporary prevention of a disease or as a treatment of a current disease. It can be used to supplement inadequate consumption or quality of colostrums. A producer can supplement or support an antibiotic treatment or treat animals that are not responding to treatment. They can also be used in the face of an epizootic (animal version of an outbreak).

Remember the protection will be short-term, lasting only about ten to fourteen days. For long-term protection, vaccination should follow about two to three weeks after the use of a serum antibody product. As always, read and follow the label directions.

At Colorado Serum Company, we provide several serum antibody products:

- **BOVI-SERA Serum Antibody**
- **CLOSTRIDIUM PERFRINGENS C&D Antitoxin**
- **NORMAL SERUM, Equine Origin**
- **TETANUS ANTITOXIN – Equine origin**
- **RESPIRAGEN Serum Antibodies**
- **WEST NILE VIRUS Antibody, Equine Origin**

