



# PRODUCT INFORMATION

## EQUINE PLASMA PRODUCTS

### EQUIPLAS® R

EQUIPLAS R (Equine IgG & *Rhodococcus equi* Antibody, Equine Origin) is for the treatment of failure of passive transfer (FPT) and/or as an aid in the management and control of respiratory disease associated with *Rhodococcus equi*. The minimum IgG content is 2400mg/dl. This product is intended for use in foals less than 6 months of age and is supplied in 950ml bags. USDA LICENSED PRODUCT.

### EQUIPLAS PLUS

EQUIPLAS Plus is plasma (Equine IgG) with a high IgG level. Each 950ml bag contains a minimum of 26gm (2700mg/dl) IgG and one bag will increase a normal foals IgG by about 400mg/dl. This is available in 600ml and 950ml bags. USDA LICENSED PRODUCT.

- Foals that are ill will not show the IgG increases indicated above because of rapid utilization of the transfused antibodies. Repeated transfusions are usually required for foals with active infections. The half-life of immunoglobulins is about 21 days in the normal foal and as low as 8 days in the sick foal.

*The amount of IgG required to confer protection on the young foal is very dependent on the environment and has been reviewed extensively. We recommend a minimum of 400mg/dl in some situations and over 800mg/dl in others. This depends on the likely pathogenic burden in the immediate surroundings. Call for specific details.*

### EQUIPLAS

EQUIPLAS is plasma (Equine IgG) for the treatment of failure of passive transfer (FPT) in the equine neonate and hypoproteinemia in horses of any age. The minimum IgG level is 1500mg/dl and one 950ml bag will increase a healthy foal's circulating IgG level by about 250mg/dl. It is sold in 950ml bags. USDA LICENSED PRODUCT.

### EQUIPLAS J

EQUIPLAS J is plasma produced from donors inoculated with *E. coli* (J5) and some of which have also been inoculated with *Salmonella typhimurium* (Re mutant) vaccines. This plasma contains high levels of antibodies to these "core-antigens" to help protect against gram-negative endotoxemia. Indications for its use include neonatal gram-negative septicemia, protein losing enteropathies, and Colitis. The dose is dependent on the severity of the condition and on the rate of protein loss. Some cases respond with one or two liters, others may require much more.

EQUIPLAS J is available in 950ml bags. CALIFORNIA LICENSED PRODUCT.

### EQUIPLAS REA

EQUIPLAS REA is *Rhodococcus equi* Antibody plasma containing antibodies to *R. equi*. Independent university research has shown that plasma containing specific antibodies to this organism is helpful as an aid in the management and control of foal pneumonia caused by *R. equi*. The time of administration is critical since the half-life of the transfused immunoglobulins is about 21 days. One initial dose is recommended for foals less than 2 months of age during the first few days of life. A second dose may be administered 4–6 weeks later. USDA LICENSED PRODUCT.

### EQUIPLAS WNV

EQUIPLAS WNV West Nile Virus Antibody, Equine Origin can be administered to provide passive immunity as an aid in the control of disease associated with West Nile Virus in adult horses. The WNV Antibody is supplied in 950ml bags and is administered at a dose of 2ml/kg to provide a protective PRNT level. Efficacy trials have been completed for the USDA but at this time, WNV Antibody is not a USDA licensed product. CALIFORNIA LICENSED PRODUCT.

### EQUIPLAS B

Clostridium Botulinum Type B Antitoxin product is labeled for prophylactic administration to horses with probable exposure to *Clostridium botulinum* Type B toxin or spores. Single dose sizes are available for either adult horses (20,000 AU) or for foals under 1 month of age (5,000 AU). *Clostridium botulinum* antitoxin has been used in cases where symptoms are already apparent, to neutralize toxin that has been ingested. USDA LICENSED PRODUCT.

## DIAGNOSTIC SERVICES

### AGID TEST FOR R. EQUI

This test detects antibodies to *R. equi* soluble proteins called "equi factors". On farms where *R. equi* pneumonia is a problem, we recommend testing foals monthly during the first 3–4 months of life. Seropositive foals should then be carefully monitored to permit early detection of *R. equi* disease.

### COGGINS TEST

AGID test for EIA and fast-turnaround ELISA testing.

### IGG TEST

We use only a standardized radial immunodiffusion test, which gives a more accurate result than many of the semi-quantitative tests available. Results are telephoned or faxed within 24 hours. RID plates are also available for sale allowing you to test up to 18 samples per plate.

## TEST KITS

### GAMMA-CHECK®

GAMMA-CHECK tests provide a means for the rapid screening of immunoglobulin levels (mainly IgG) in colostrum, whole blood, or serum. The tests are based on the ability of glutaraldehyde to react with gammaglobulin. The occurrence of this reaction in blood, serum and colostrum causes a solid clot formation. This clot formation is the end point of the test and the time taken for the clot to form is inversely related to the amount of gammaglobulin present. The GAMMA-CHECK-E test is available for use with foal blood or serum; the GAMMA-CHECK-C uses equine colostrum; the GAMMA-CHECK-B is for use with bovine blood or serum.

### EQUINE RID

This is a radial-immunodiffusion test for quantitative measurement of equine IgG, giving the most accurate result of any IgG test on the market. This test, used in combination with the GAMMA-CHECK kits, offers the ideal solution to accurately evaluate the foal with a low IgG level. They are offered for high-level or low-level IgG readings with a standard range of approximately 300–2500 and 80–800.

### PURITY & SAFETY

Plasma and red cells are harvested using the same stringent controls and pheresing equipment as is used in the collection of human blood products. Our facility is USDA licensed and all operations are monitored by our strict quality assurance. The system utilizes a completely closed collection method, which ensures freedom from outside contamination by bacteria or endotoxins. No preservatives are added to any of our products. The anticoagulant used during plasma collection is Sodium Citrate. Plasma is frozen immediately after collection and stored at –18°C. Safety and sterility tests are performed on every serial of plasma to check for freedom from bacteria and fungi. Independent analysis shows the plasma to have a normal protein electrophoretic pattern. Immunoglobulin determinations are performed in our lab using standardized radial immunodiffusion tests.



## ADMINISTRATION

Plasma should be thawed immediately prior to administration. The most convenient method is to place the bag into warm water at approximately 40°C (the temperature of a hot shower). Thawing in water that is too hot (above 50°C) can easily denature proteins and cause fibrinogen to precipitate. Plasma is then warmed to body temperature, mixed well and administered directly from the bag. Nothing should be added to the contents of the bag, and the plasma must not be removed from the bag and placed into another receptacle. Activation of platelets and clotting factors can occur when plasma comes into contact with glass. **DO NOT DILUTE WITH SALINE.** Small amounts of fibrin are occasionally seen in the plasma when it is thawed. **IF EXCESSIVE FIBRIN IS SEEN OR THE PLASMA HAS A CLOUDY APPEARANCE OR DARK BROWN COLOR, DO NOT ADMINISTER—CALL (800) 654-9743 FOR ADVICE.** Occasionally, plasma will have a greenish tinge, but this is of no consequence.

- Healthy foals tolerate transfusions well if mildly sedated, and the skin over the jugular vein anesthetized before introduction of the catheter. A 16g x 2" is suitable for foals and a larger catheter can be used in adult horses. **Always administer through a filtered blood administration set.** This ensures that small fibrin clots do not enter the body. We have these administration sets available for sale if requested. In most cases, a liter of plasma can safely be given to a foal in 15–20 minutes.

## ORDERING & SHIPPING

Orders can be placed 24 hours a day using our toll-free number. If not during our normal business hours, your call will be answered by our voice mail system and confirmed the next business day. Products are normally shipped Priority Overnight by Federal Express, but special arrangements can be made in emergency situations. Plasma is shipped frozen and packed in insulated boxes. Red cells and whole blood are shipped chilled.

## STORAGE

Plasma products should be stored frozen at –18°C until required. If they are to be used for immunoglobulin replacement, the frozen shelf life is three years. If required for complement or clotting factors, the shelf life is shorter: Once thawed the IgG is stable for at least 7 days if kept refrigerated at 4°C. If plasma is thawed but still feels cool and then subsequently not required, it is possible to re-freeze it. This should only be done once and may lead to an increase in the amount of precipitate seen after the second thawing. This will not significantly affect the immunoglobulins and the precipitate is filtered out by the administration set. **Re-freezing plasma that has been warmed to body temperature is not recommended.**

- Red cells have a refrigerated shelf life of three to four weeks. Do not freeze red cells, as they will hemolyze.
- Whole blood collected for long term storage has a maximum shelf life of 42 days when stored at 4°C.

## DONOR HERD

Plasvacc USA's equine blood products are produced from a USDA approved herd of approximately 90 horses. Prior to acceptance into the closed herd, the Department of Serology, UC Davis screens the animals for their suitability as plasma and red cell donors. Plasma donors must be free of agglutinins and hemolysins to common red cell antigens. All donor horses are blood typed. Additionally, each donor is tested for EIA, EVA, glanders, dourine, piroplasmosis and brucellosis. Once accepted into the herd, frequent serologic monitoring ensures continued freedom from these diseases.

- Regular veterinary inspection combined with an intensive vaccination program, guarantees healthy animals and high quality products. The vaccination schedule includes the use of commercially available equine vaccines. For the production of antibody-specific plasma, we use specially prepared vaccines to ensure high antibody titers. These include *E. Coli* (J5) and *Rhodococcus equi*. Antibody titers are monitored. **Those donors producing plasma to be used to treat foals with failure of passive transfer (FPT) are intensively vaccinated against common neonatal pathogens.**

**Plasvacc USA Inc.** is now a leading equine plasma and blood component supplier worldwide. Our facilities are located on the beautiful Central Coast in Templeton, California and in Kalbar, Australia. We have distribution facilities in Canada and New Zealand. Our company has the ability to provide a wide range of plasma products containing antibodies to many different organisms, as well as other blood products such as red cells and whole blood. Our friendly staff provides outstanding customer service and technical assistance. We work closely with veterinarians to assure a healthy equine population.

## SPECIAL ORDERS

Upon request, we have the ability to supply special orders for such products as:

- PACKED EQUINE RED BLOOD CELLS
- DRUG FREE PLASMA OR URINE
- FRESH, WHOLE EQUINE BLOOD.

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Web [www.plavaccusa.com](http://www.plavaccusa.com)

### Technical support and inquiries to Chief Scientific Officer

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### To order

Please contact Plasvacc.

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