



# HEMOPET

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## CANINE PLATELET-RICH PLASMA

**KEEP REFRIGERATED, DO NOT FREEZE**  
California Biologics License #84

### 1. PRODUCT DESCRIPTION

Canine Platelet-Rich Plasma is a blood product intended for clinical transfusion use in dogs. Blood is collected aseptically into either a citrate-phosphate-dextrose (CPD) anticoagulant-filled blood bag licensed for human use by Fenwal Blood Technologies or into a citrate-phosphate-dextrose-adenine (CPDA-1) anticoagulant-filled blood bag licensed for human use by Terumo Medical Corporation.

Hemopet's donor dogs are healthy animals maintained at the Hemopet facility in an isolated, closed colony environment. All donor dogs are of blood type DEA 4(C) and are negative for all other known canine red blood cell antigens, including DEA 1.1 (A1), DEA 1.2 (A2), DEA 7 (Tr), the antigens most associated with clinically significant transfusion incompatibilities in dogs. All product labels indicate the donor's blood type.

All donors receive on-site, 24 hour-a-day veterinary care and maintenance, and have been blood and serologically tested for canine brucellosis, hemobartonellosis, *Borrelia burgdorferi* (Lyme disease), *Dirofilaria immitis* (heartworm disease), *Ehrlichia canis*, Rocky Mountain spotted fever, *Coccidioides immitis*, *Babesia canis*, *Babesia gibsoni*, *Mycoplasma haemocanis* and plasma levels of von Willebrand factor. All donor dogs are current on immunizations for canine distemper, hepatitis, parainfluenza, leptospirosis, parvovirus, Bordetella, coronavirus and rabies virus.

The expiration date on the label is calculated from the date of collection. Please note this expiration date upon receipt of the blood at your facility. Blood that has been delivered and accepted by signature cannot be returned.

Canine Platelet-Rich Plasma has been processed from freshly collected Canine Whole Blood in CPD or CPDA-1 blood bag within two hours of collection. The anticoagulated blood has been centrifuged slowly to produce supernatant plasma, rich in platelets and containing some white blood cells. It has a shelf-life of not more than 72 hours at refrigerator temperature.

One "unit" of Canine Platelet-Rich Plasma consists of the approximately 85 mL of plasma, platelets and some white blood cells and about 9 mL of CPD or CPDA-1 anticoagulant removed within 2 hours of the time of blood collection from a freshly collected 250 mL unit of Canine Whole Blood. The total fluid volume in the plastic transfer bag is about 94 mL and the platelet count of this product is enriched about 2 to 4 fold per unit volume over whole blood. This product is best used shortly after preparation and has a shelf-life of up to 72 hours at refrigerator temperature.

### 2. INDICATIONS

Canine Platelet-Rich Plasma is indicated for treatment of severe thrombocytopenic purpura or platelet function defects (thrombopathia) with active bleeding or for prophylaxis of patients with platelet dysfunction that are undergoing surgery. Platelets may be of little value in immune-mediated thrombocytopenia as they are destroyed rapidly by the liver and spleen. In such cases, platelet-rich plasma can provide an immediate short term local hemostatic effect at sites of bleeding. Repeated platelet transfusions are not advised as adverse immunologic sensitization (alloimmunization) to subsequent platelet and white blood cell exposures can develop.

### 3. PRECAUTIONS/CONTRAINDICATIONS

A. The volume of platelet-rich plasma product transfused will depend upon the individual patient's needs which generally should not exceed 3-5 mL/lb of body weight given once or twice daily and not more than 10 mL/lb body weight over a 24 hour period for normovolemic animals.

B. The rate of administration of platelet-rich plasma should be slow for the first 10-30 minutes to monitor for signs of adverse reaction (see section 3E). The average rate for normovolemic patients should be 10 mL/lb over 4 hours. The rate in hypovolemic patients should not exceed 10 mL/lb/hour. For cardiac or other compromised patients at risk for circulatory embarrassment, the rate should be much slower (up to 2mL/lb/hour).

C. **This product must not be mixed with or administered in the same intravenous or other parenteral line with Lactated Ringer's solution or any other solution containing divalent cations.** The safest fluid to mix with or administer via the same infusion apparatus is 0.9% sodium chloride (NaCl).

D. Filters can be used when administering plasma. Standard drip type administration filters and special filter sets that adapt to syringes for filtering smaller volumes of plasma or plasma concentrate are available.

E. Transfusion reactions or blood-transmissible diseases can still arise despite donor blood typing, patient-donor crossmatching and thorough serological screening of donor dogs. Please monitor patients receiving these products closely for signs of adverse reactions including circulatory overload, and **refrain from adding medications to the plasma bag or into the same infusion system during transfusion.** If a reaction occurs, **STOP** the transfusion immediately, and then initiate appropriate supportive measures (see section 5).

**It is not uncommon for the recipient to experience shivering, salivation, urticaria or restlessness when given a fresh platelet transfusion because this product often contains small amounts of fragmented platelets, as well as histamine and serotonin released from platelets during centrifugation. This product should be given slowly.**

F. Gently mix the contents of the plasma bag before administering. Do not use any blood product if the bag has been damaged and is leaking contents or if the contents are clotted or discolored.

#### **4. ADMINISTRATION**

A. Canine Platelet-Rich Plasma is to be used only in dogs.

B. The volume of Canine Platelet-Rich Plasma needed is usually 10 mL/Kg (4.5 mL/lb) given slowly for the first 10-30 minutes and then at a rate not to exceed 4-6 mL/minute twice daily (see section 3E).

C. The preferred site for transfusion is intravenous because 100% of the infused material circulates.

D. Refrigerated Canine Platelet-Rich Plasma should be warmed to room temperature before transfusion. **Do not let this product become overheated beyond 30° C / 86° F.**

E. For the recommended rate of administration please refer to section 3B.

#### **5. ADVERSE TRANSFUSION REACTIONS**

Complications of transfusion can be manifested by a variety of clinical signs: restlessness, cardiac arrhythmias, irregular respirations, salivation, lip smacking, writhing, vomiting, defecating, urination, edema, erythema, hives, urticaria, fever, jaundice, hemoglobinuria, anuria, DIC, bruising, hemorrhage, acute renal failure and death.

#### **6. SHELF-LIFE AND STORAGE**

Canine Platelet-Rich Plasma is best used immediately upon receipt from a freshly collected and processed unit of Canine Whole Blood or can be stored for up to 72 hours at refrigerator temperature but should be allowed to equilibrate to room temperature for about 30 minutes before transfusion (because platelets undergo shape change in the cold). The expiration date is clearly indicated on the product label.

#### **7. SELECTED REFERENCES**

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