

VetStem GenesisCS-2

VETERINARY PLATELET RICH PLASMA KIT

DESCRIPTION

The GenesisCS-2 Component Concentrating System enables veterinarians to produce autologous platelet rich plasma (PRP) for a variety of surgical and wound care procedures. The GenesisCS-2 system is designed to produce autologous PRP in a straight-forward process that veterinarians or technicians can follow to aseptically produce 3-6 mL PRP in as little as 30 minutes. The GenesisCS-2 system contains everything needed for collection and processing (except a centrifuge) of blood to concentrate platelets.

INSTRUCTIONS (SEE BLOOD DRAW AND PROCESSING STEPS ON REVERSE)

- **Indication for use:** The GenesisCS-2 Component Concentrating System is designed to be used for the safe and rapid preparation of autologous platelet rich plasma (PRP) from a small sample of blood at the patient's point of care. **For veterinary use only.**
- Before using this system, be sure to read and understand these instructions for use.
- For single use only. All items are sterile if the package is undamaged or unopened. Do not re-sterilize. All items contained in this kit must be disposed of according to applicable regulations for biological waste and sharps disposal. Use universal precautions. Must be stored in a dry place. Protect from vapors and extreme heat.
- This device is designed to separate anticoagulated whole blood. Fifty two (52) ml of whole blood must be anticoagulated with 8 ml of ACD before introducing into the separator device (Do not use CPD or heparin). Blood not properly anticoagulated will clot during centrifugation resulting in premature activation.
- The separation device is designed to be centrifuged at 720g (centrifugal force) for 15 minutes without refrigeration. To calculate the centrifugation speed in RPMs, measure the radius of the rotor in centimeters at its widest point. Go to <http://www.vetstem.com/prp.php> and use the RPM calculator. The separator tubes can be used in rotors designed for IRAP. For additional questions please contact VetStem.
- **Caution:** Federal (U.S.A.) law restricts this device for sale by, or on the order of a licensed veterinarian. Always follow aseptic technique whenever entering a sterile container. Aseptic technique, proper site preparation, and continued protection of the venipuncture site are essential.

PROPER BALANCING OF SEPARATORS

1. To counter balance, separator tubes must be placed opposite each other in the centrifuge rotor.
2. All separators must contain the same volume during centrifugation.
3. **Failure to properly balance the centrifuge can result in blood not separating, equipment damage, and personal injury.**

IF VIGOROUS VIBRATION OCCURS

1. Quickly stop the centrifuge.
2. Remove the components and check each separator for equal volume. Make sure separators are placed at opposite ends of each other and that unused buckets are removed.

PLATELET COUNT (A 1:5 dilution of platelets is recommended to facilitate accurate platelet counting)

1. Make diluent by combining 1 mL of ACD with 9 mL of saline.
2. Mix PRP well and then combine 0.8 mL of diluent with 0.2 mL of PRP in a red top tube and mix gently.
3. Extract volume needed for counting using standard automated or manual counting methods.
4. Platelet count is multiplied by 5 to account for the 1:5 dilution used for counting.

It is recommended that the time of blood collection to the time of injection of autologous PRP should not exceed 4 hours.

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BLOOD DRAW

BLOOD DRAW STEP 1

FILL THE 60ML SYRINGE WITH EXACTLY 8ML OF ACD



BLOOD DRAW STEP 2

ATTACH AND PRIME THE NEEDLE EXTENSION SET WITH THE ACD



BLOOD DRAW STEP 3

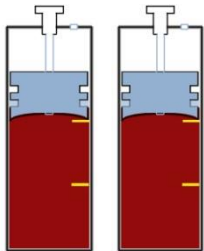
USING ASEPTIC TECHNIQUE, FILL WITH BLOOD TO 60 ML. (52ML BLOOD, 8ML ACD). CAP WITH BLUE LUER LOCK CAP. GENTLY MIX BLOOD WITH ACD.



BLOOD PROCESSING

BLOOD PROCESSING STEP 1

BEFORE PROCESSING GENTLY MIX BLOOD. FILL EACH SEPARATOR WITH 30ML ACD ANTI-COAGULATED BLOOD AND SEAL WITH ATTACHED LUER CAP.



IF USING ONLY ONE SEPARATOR, FILL THE SECOND SEPARATOR WITH WATER AS A CENTRIFUGE COUNTER-BALANCE.

BLOOD PROCESSING STEP 2

PLACE BOTH SEPARATORS IN THE CENTRIFUGE BUCKETS, CAP SIDE UP, AT OPPOSITE SIDES OF THE ROTOR.

SPIN TUBES FOR 15 MINUTES AT 720 x *g* WITHOUT REFRIGERATION.

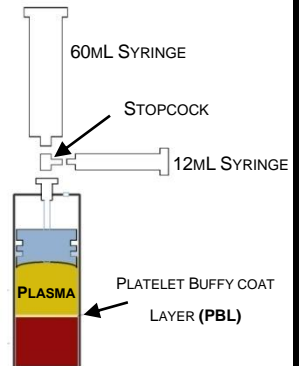
TO CALCULATE THE SPEED IN RPM FOR YOUR CENTRIFUGE ENTER THE RADIUS OF THE ROTOR IN CENTIMETERS AT [HTTP://WWW.VETSTEM.COM/PRP.PHP](http://www.vetstem.com/prp.php)

INSTRUCTIONS FOR MEASUREMENT OF ROTORS CAN ALSO BE FOUND THERE.

BE SURE TO COUNTERBALANCE SEPARATOR TUBES

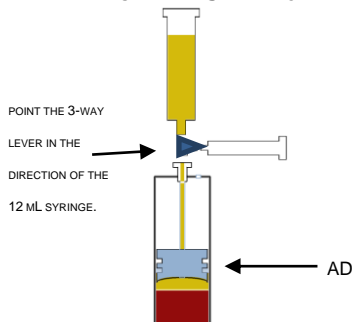
BLOOD PROCESSING STEP 3

ONCE CENTRIFUGATION HAS STOPPED, REMOVE THE SEPARATORS. ATTACH ONE TO THE ASPIRATION ASSEMBLY



BLOOD PROCESSING STEP 4

WITH THE STOPCOCK OPEN TO THE 60ML SYRINGE, BEGIN SLOWLY DRAWING PLASMA INTO THE 60ML SYRINGE. THIS WILL DRAW DOWN THE CONCAVE ASPIRATION DISC (AD) INSIDE THE SEPARATOR.

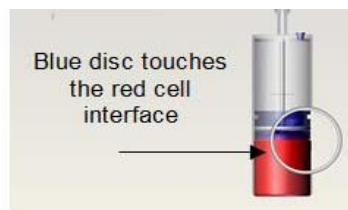


BLOOD PROCESSING STEP 5

ASPIRATE PLASMA UNTIL THE BOTTOM OF THE BLUE ASPIRATION DISC IS AT THE TOP OF THE RED CELL LAYER.

DO NOT ASPIRATE ANY OF THE PBL INTO THE 60ML SYRINGE

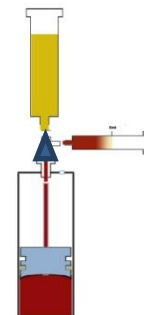
OPEN THE 3-WAY VALVE TO THE 12 ML SYRINGE BY POINTING THE 3-WAY STOPCOCK LEVER IN THE DIRECTION OF THE 60 ML SYRINGE.



BLOOD PROCESSING STEP 6

DRAW 3ML OF PRP INTO 12ML SYRINGE

NOTE: PRP WILL CONTAIN SOME OF THE RBC LAYER – THIS WILL MAKE THE PRP APPEAR RED



BLOOD PROCESSING STEP 7 – REMOVE THE 12 ML SYRINGE CONTAINING PRP.

CAP THE SYRINGE WITH FRESH BLUE LUER LOCK CAP.

REPEAT STEPS 3-7 FOR EACH 30 ML SEPARATOR.

USE ASEPTIC TECHNIQUE TO TRANSFER NEW 12 ML SYRINGE TO THE ASPIRATION ASSEMBLY.

PROCESSING OPTION – HIGHER PRP CONCENTRATIONS MAY BE OBTAINED BY DRAWING ONLY 2 ML OF PRP INTO THE 12 ML SYRINGE.