

PBMC Separation Tubes

—Rapid PBMC Isolation in 15 Minutes only!

PBMC Separation Tubes is mainly used to isolate mononuclear cells (MNCs) from peripheral whole blood, cord blood or bone marrow by density gradient centrifugation.

The JET BIOFIL PBMC Separation Tubes boasts a unique design featuring a built-in separation bracket, which effectively reduces the mixing of target samples and the density gradient medium. This design allows Mononuclear Cells (MNCs) to be retained above the separation bracket, separating them from the erythrocytes and granulocyte layer present at the tube's bottom. MNCs can be collected by effortlessly pouring out after centrifugation without the need for complex steps, streamlining experiments and saving valuable time compared to traditional methods.

PBMC Separation Tubes strictly adheres to the Good Manufacturing Practice (GMP) standards. It meets the requirements for biological laboratory consumables with a higher cleanliness grade, ensuring its suitability for various experimental applications.



Specification: 50 mL with separation bracket Cap Type: Flat
 Separation Bracket Type: Eight-hole Cylindrical Bottom Type: Conical
 Material:
 Tube Body: Polypropylene (PP); Tube Cap: High-density polyethylene (HDPE);
 Separation Bracket: Methyl methacrylate-butadiene-styrene (MBS). Conforming to USP Class VI standards

Features:

- ◆ The built-in separation bracket minimizes the mixing of the sample and the separation medium, thereby avoiding the need for slow and laborious application of the sample to the upper layer of the density gradient medium. ①
- ◆ Easy to operate, with MNCs collected by directly pouring out after centrifugation.
- ◆ High consistency minimizes the influence of human operation on experimental outcomes.
- ◆ Rapidly isolates peripheral blood mononuclear cells (PBMCs) within a 15-minute time frame.
- ◆ This product is manufactured in strict adherence to GMP standards, and the finished items undergo rigorous third-party testing to meet the experimental requirements for consumables with a higher cleanliness grade.
- ◆ Triple independent bagged clean medical outer packaging, with product lot number marked on the innermost layer for traceability.
- ◆ Sterilized by irradiation, SAL 10⁻⁶, DNase/RNase-free, Non-pyrogenic, Non-cytotoxic, No mycoplasma.

Precautions:

- ◆ Store at room temperature in a sealed, dry place away from light. Avoid re-purposing.
- ◆ The centrifugal speed and time in the "Operation Method" are applicable to general tests. All laboratories can adjust them to adapt to different blood samples and centrifuges.
- ◆ It can be used for peripheral whole blood, bone marrow, and cord blood samples. Blood should be collected at room temperature and stored in an anticoagulant container for no more than 48 hrs. Blood samples within 2 hrs are recommended for better isolation.
- ◆ Samples can be diluted with normal saline for better isolation. The respective dilution ratio of 1:2 and 1:4 for blood and bone marrow samples is recommended, which can be adjusted following experimental requirements.
- ◆ For processing 4-17 mL of initial samples only. (Please refer to the package insert for details, as individual variations may exist in the samples.)
- ◆ All biological samples must be managed following biosafety laboratory procedures and adhering to the relevant local, state, or national biohazard safety regulations.



Operation Method



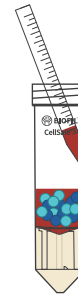
Equilibrate the temperature of the separation medium to room temperature in advance and keep it away from light.

1



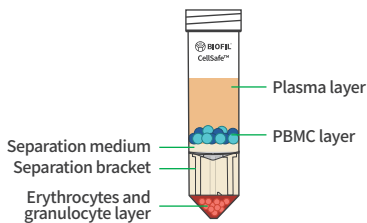
Pipette 15 mL of separation medium through the central hole of the separation bracket. The top of the separation medium should be above the separation bracket. (For large treatment capacity, centrifugation at $1000 \times g$ for 1 min at room temperature following the addition of medium is also acceptable.)

2



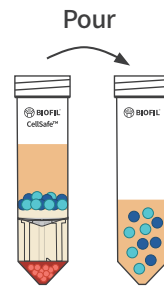
Pipette the blood sample down the side of the tube (the sample can also be poured down the side of the tube, but should be kept from directly entering the separation medium below the separation bracket through the central hole). Blood samples should be anticoagulated whole blood (diluted if necessary).

3



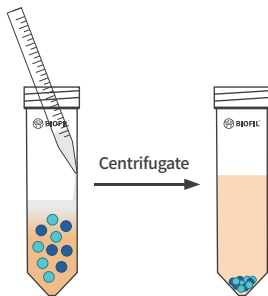
Centrifuge at $1200 \times g$ for 10 min at room temperature, with the brake on (following centrifugation, the liquid is stratified from top to bottom as plasma layer, PBMC layer, separation medium, separation bracket, and erythrocytes and granulocyte layer).

4



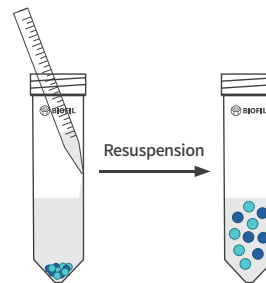
Pour off the top layer containing PBMCs and plasma into a new clean centrifuge tube or pipette out the PBMC layer.

5



Wash the collected PBMCs with phosphate buffered saline (PBS) and centrifuge at $250 \times g$ for 10 min at room temperature.

6



Wash 2 times, and then resuspend the collected PBMCs with PBS buffer or suitable media for later use.

7

Ordering Information:

Cat. No.	Description	Sterile	Recommended Sample Volume		Qty. Per Bag/Case
			Undiluted	Diluted	
CSP021050	Tube with separation bracket (50 mL/tube)	Y	4-17mL	15-30mL	25/100

