Special Application

Double Gradient Centrifugation

Combine PBMC and Leuko Spin Medium

The combination of different Spin Media increases your possibilities for sample preparation with density centrifugation. A blood sample can be split into PBMC (Fig. 9) and granulocytes (Fig. 10) within one centrifugation step. This method allows you to access untouched granulocyte enrichment with high yield and purity.

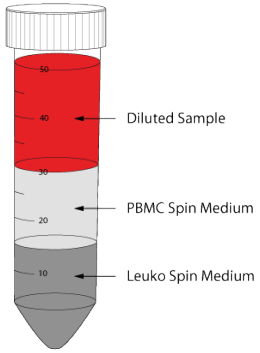

Fig. 7: Preparation of double gradient

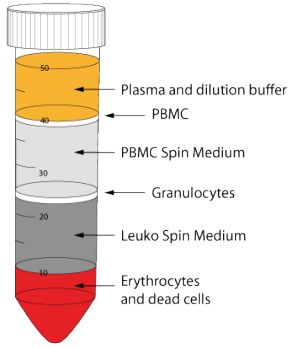

Fig. 8: Layers after double gradient centrifugation.

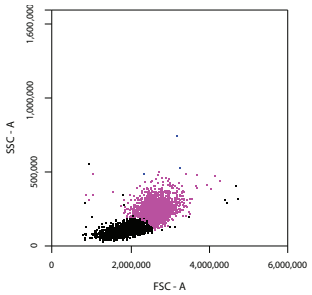

Fig. 9: Enriched PBMC fraction with double gradient centrifugation*

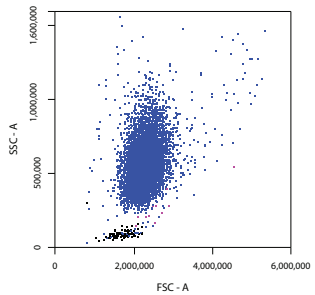

Fig. 10: Enriched granulocyte fraction (up to 97%) with double gradient centrifugation*

**Flow cytometry analysis was gated on CD45+ cells.*

Advantages using a double Gradient

- ✓ CTC enrichment in combination with pluriSpin CD45 depletion
- ✓ Fast enrichment of untouched granulocytes
- ✓ Access to basophil granulocytes in combination with pluriSpin CD15 depletion or eosinophil granulocytes in combination with pluriSpin CD16 depletion
- ✓ Multiple cell fractions within one centrifugation step

Density Media

Leuko Spin Medium	Size	Order No.
	100 ml	60-00091-10
	250 ml	60-00091-11
	500 ml	60-00091-12

PBMC Spin Medium (Lympho Spin Medium)	Size	Order No.
	100 ml	60-00092-10
	250 ml	60-00092-11
	500 ml	60-00092-12

PBMC 24+ Spin Medium (Lympho 24+ Spin Medium)	Size	Order No.
	100 ml	60-00093-10
	250 ml	60-00093-11
	500 ml	60-00093-12

PLT Spin Medium	Size	Order No.
	100 ml	60-00094-10
	250 ml	60-00094-11
	500 ml	60-00094-12

pluriMate

Tubes to support the density centrifugation process.

	Tube Size	Sample Volume	Order No.
pluriMate-2	2 ml	0.25 - 1 ml	44-00002-10
pluriMate-15	15 ml	1 - 12 ml	44-00015-10
pluriMate-50	50 ml	5 - 20 ml	44-00050-10

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Phone: 619-202-4297
support.usa@pluriselect.com

www.pluriselect.com/products/density-gradient-centrifugation.html

V 1.2

Density Gradient Media

www.pluriselect.com

Facts & Features

- ✓ Enrich cells with high yield and a maximum viability
- ✓ Usable with standard protocols for density gradient centrifugation
- ✓ No training or special equipment required
- ✓ Isolate from whole blood, buffy coat or cord blood
- ✓ Enrichment of untouched specific cells in combination with pluriSpin negative cell separation
- ✓ Usable for sample preparation for magnetic cell separation
- ✓ Usage of different Spin Media with double density gradient centrifugation for special applications

Available Density Media for human cell enrichment

Spin Medium	Enriched Cell Population
Leuko Spin Medium	All Leukocytes (PBMC, PMNC, granulocytes)
PBMC Spin Medium (Lympho Spin Medium)	Mononuclear cells (PBMC)
PBMC 24+ Spin Medium (Lympho 24+ Spin Medium)	Mononuclear cells from 8 - 48 hours old peripheral blood
PLT Spin Medium	Platelets

PBMC (peripheral blood mononuclear cells), PMNC (polymorphonuclear cells)

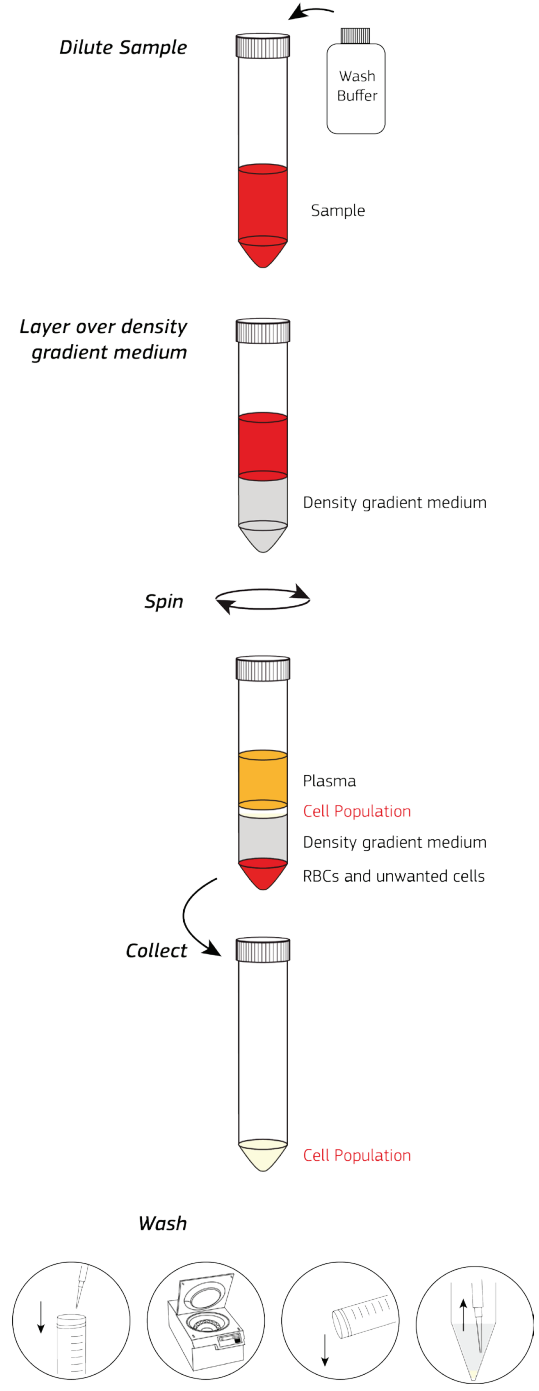
pluriMate®

pluriMate® easy and fast handling of sample preparation with density media.

pluriMate® avoids the mixing of sample and density media while overlaying.

pluriMate® centrifuge with brake on and pure of sample after centrifugation into a fresh tube.

Workflow



Data

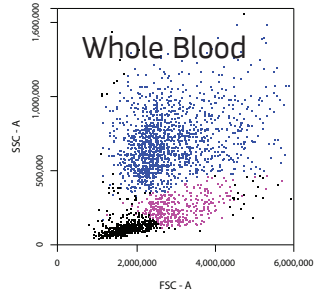


Fig. 1: Whole blood, major cell populations*

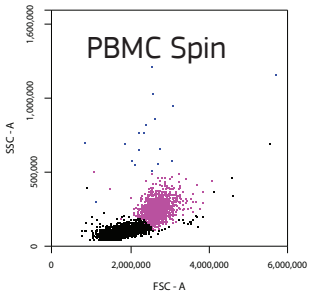


Fig. 2: Enriched PBMC with PBMC Spin Medium*

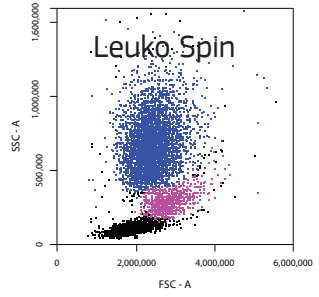


Fig. 3: Enriched white blood cells with Leuko Spin Medium*

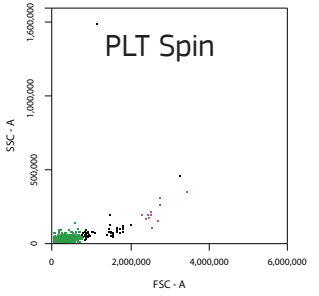


Fig. 4: Enriched platelets with PLT Spin Medium*

The major white blood cell populations of whole blood (Fig. 1) with interest for research and development are lymphocytes (black), monocytes (pink), granulocytes (blue) and platelets (green). The usage of the Spin Media allows to enrich the different cell populations for a wide range of downstream applications.

PBMC 24+ Spin Medium - access to old blood - improve your results

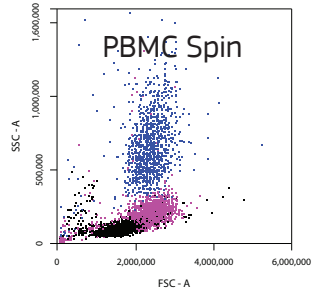


Fig. 5: Enriched PBMC with PBMC Spin Medium from blood 24 hours after blood donation*

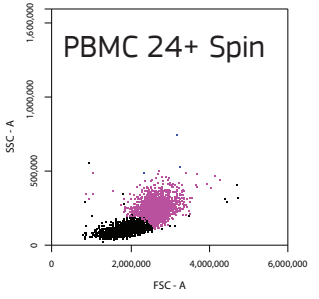


Fig. 6: Enriched PBMC with PBMC 24+ Spin Medium from blood 24 hours after blood donation*

Most density gradient media are limited for the use of fresh whole blood. PBMC 24+ Spin Medium is recommended for the use of whole blood that is older than 8 hours. This medium helps to reduce the time depended contamination of the PBMC fraction with granulocytes and debris (see Fig 5 and Fig. 6).

**Flow cytometry analysis was gated on CD45+ cells.*