Simplify and Standardize PBMC Isolation with SepMate™

Isolating peripheral blood mononuclear cells (PBMCs) from whole blood is typically a laborious lab procedure. With SepMate™ it doesn’t have to be so time consuming and difficult. SepMate™ is a specialized tube for fast and consistent PBMC isolation in just 15 minutes. It contains a unique insert that prevents layers from mixing so blood can be quickly pipetted or poured over the density gradient medium (e.g. Lymphoprep™). After a 10-minute centrifugation with the brake on, plasma and PBMCs are simply poured into a new tube.

SepMate™ is registered in select countries as an In Vitro Diagnostic (IVD) device for the isolation of mononuclear cells (MNCs) from whole blood or bone marrow by density gradient centrifugation. SepMate™ tubes are manufactured following current Good Manufacturing Practices (cGMP) and are sterile to ensure no contamination of samples.

Why Use SepMate™?

EASY. Avoid slow and laborious sample layering over the density gradient medium.

FAST. Centrifuge for just 10 minutes with the brake on and simply pour off PBMCs into a new tube.

CONSISTENT. Eliminate errors and minimize variability between users.

REGISTERED. Use with whole blood or bone marrow samples for In Vitro Diagnostic (IVD) applications.

There was no significant difference in the recovery of MNCs with and without SepMate™-15 at any time point.

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**Figure 1.** Recovery of MNCs from a single sample at 0-, 24- and 48-hours post blood draw enriched by density gradient centrifugation with SepMate™-15 (purple squares) or without SepMate™-15 (grey squares).

<table>
<thead>
<tr>
<th>TUBE</th>
<th>CATALOG #</th>
<th>BLOOD VOLUME PROCESSED (ML)</th>
<th>UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SepMate™-15 (IVD)</td>
<td>85415</td>
<td>0.5 - 5</td>
<td>100 tubes</td>
</tr>
<tr>
<td>SepMate™-50 (IVD)</td>
<td>85450</td>
<td>4 - 17</td>
<td></td>
</tr>
<tr>
<td>DENSITY MEDIUM</td>
<td>CATALOG #</td>
<td>DENSITY</td>
<td>UNIT SIZE</td>
</tr>
<tr>
<td>Lymphoprep™</td>
<td>07851</td>
<td>1.077 g/mL</td>
<td>500 mL</td>
</tr>
</tbody>
</table>

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1. SepMate™ (IVD) is available in Australia, Canada, Europe, and the United States of America, where it is registered as an In Vitro Diagnostic (IVD) device for the isolation of mononuclear cells from human whole blood, cord blood and bone marrow by density gradient centrifugation. This product is also available in China where it is considered a non-medical device by the China Food and Drug Administration (CFDA), and should therefore be used as general laboratory equipment. SepMate™ tubes are sterilized by irradiation.

2. Lymphoprep™ has the same density as Ficoll-Paque® and can be substituted for Ficoll-Paque® without any need to change your existing protocols. Lymphoprep™ is for Research Use Only (RUO).

“I tested the SepMate™ tubes yesterday and they worked… fantastically! I ran in parallel the same sample with my standard protocol and the cell recovery was the same (in a quarter of the time, of course).”

Esperanza Perucha, PhD, Academic Rheumatology King’s College London, UK

Request a SepMate™ Sample

www.stemcell.com/sepmatesample
Hassle-Free PBMC Isolation in Just 15 Minutes

Do you want to simplify and speed up cell isolation from whole blood?

Are you sure?

No

Yes

Do you need to source blood or have specific donor requirements?

Are you isolating a specific cell subset?

No

Yes

RosetteSep™
Unique Immunodensity Cell Isolation

RosetteSep™ cocktails crosslink unwanted cells to red blood cells (RBCs) present in the sample for removal. Desired cells are purified during density gradient centrifugation.

RosetteSep™ kits are for Research Use Only (RUO).
For a complete list visit www.RosetteSep.com

Fresh Whole Blood Products

Get fresh whole peripheral blood when you need it. Obtain detailed donor information or specify your donor requirements.

Fresh Human Peripheral Blood Products

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>ANTICOAGULANT</th>
<th>CATALOG #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Peripheral Blood</td>
<td>CP2D</td>
<td>70501</td>
</tr>
<tr>
<td></td>
<td>ACDA</td>
<td>70504</td>
</tr>
</tbody>
</table>

1. Fresh whole peripheral blood only available in the United States and Canada (excluding Quebec).
2. For detailed information on donor screening see www.stemcell.com/PrimaryCells
3. CP2D - Citrate-Phosphate-Double Dextrose; ACDA - Acid-Citrate-Dextrose Solution A.

For a complete list visit www.stemcell.com/PrimaryCells.

IVD Applications

Use MNCs isolated with SepMate™ for your downstream IVD applications.
From all products listed here, only SepMate™ is registered as an IVD device.

Cell Subset Isolation

Use EasySep™ to further isolate cell subsets from PBMCs.
www.EasySep.com

Analysis by Flow Cytometry

Analyze cells with antibodies compatible with our cell culture and isolation reagents.
www.stemcell.com/Antibodies

Cell Culture

Culture isolated immune cells with specialized media and supplements.
www.ImmunoCult.com

Cryopreservation

Cryopreserve cells using cGMP-manufactured, animal component-free cryopreservation medium.
www.stemcell.com/Cryopreservation

Add density gradient medium to SepMate™ tube through the insert

Add RosetteSep™ Antibody Cocktail to whole blood. Incubate for 10 min., then proceed to Step 1

Pipette or pour blood into SepMate™ tube

The insert prevents layers from mixing.

Centrifuge for 10 min. (brake on)

RBCs and granulocytes sediment through the density medium. If using RosetteSep™, unwanted cells pellet together with the RBCs.

Pour

The SepMate™ tube allows isolated cells to be simply poured off.

Add RosetteSep™ Antibody Cocktail to whole blood. Incubate for 10 min., then proceed to Step 1

Lymphoprep™
Catalog #07801 | Density: 1.077 g/mL
Cost-effective alternative to Ficoll-Paque® and fully compatible with both SepMate™ and RosetteSep™.

SepMate™ insert

The insert prevents layers from mixing.

RBCs and granulocytes sediment through the density medium. If using RosetteSep™, unwanted cells pellet together with the RBCs.

The SepMate™ tube allows isolated cells to be simply poured off.

Dilute blood sample with PBS + 2% FBS (Catalog #07905) or as directed in the product insert

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