

USER MANUAL

Product: MNC Extraction Kit

Components (Quantity) Dilution Medium (01 × 100 mL bottle), Separation Medium (01 × 100 mL bottle), Clean-up Medium (01 × 100 mL bottle), Washing Buffer (02 × 100 mL bottle), ACD-A Bag (10 × 9 mL tubes)

Reference number: 105, 394

Size: Each set of tools is suitable for processing 100 - 300 mL of blood.

Intended Use:

For research or manufacturing purposes only.

Overview Product:

The MNC Extraction Kit is a comprehensive product that incorporates specialized chemicals and synchronized tools specifically designed for the isolation of mononuclear cells (MNC) from diverse sources such as peripheral blood, umbilical cord blood, bone marrow, menstrual blood, or ascites fluid. The kit employs the principle of isopycnic centrifugation, a highly effective technique for achieving efficient separation of MNC from other cellular components.

MNC Extraction Kit is designed to facilitate 10 separation procedures, and each procedure requires a blood sample ranging from 10 to 30 mL in volume.

Known Applications:

The efficacy of the MNC Extraction Kit in achieving reliable separation has been rigorously evaluated using human bone marrow and umbilical cord blood samples, consistently demonstrating highly efficient outcomes.

Reconstitution, Dilution, and Mixing:

Not applicable

Materials and Reagents Required But Not Provided:

Not applicable.

Handling and Storage:

Store at 2°C – 8°C.

Expiration date: determined by the shortest expiration date of the kit components.

Instructions for Use:

1. Collect a sample of umbilical cord blood, peripheral blood, or bone marrow and preserve it in a suitable anticoagulant.
2. Dilute the blood with Dilution Medium at a 1:1 ratio.
3. Add an appropriate amount of Separation Medium solution to the centrifuge tube (15 mL for a 50 mL centrifuge tube; 3 mL for a 15 mL centrifuge tube).
4. Carefully layer the diluted blood solution onto the Separation Medium layer in the centrifuge tube at a ratio of 30 mL blood/15 mL Ficoll for a 50 mL centrifuge tube (or 10 mL blood/3 mL Ficoll for a 15 mL centrifuge tube).
5. Centrifuge at 400G for 30 minutes at a temperature of 18-20°C, with a brake setting of 0.
6. Collect MNC from the buffy coat layer.
7. Add Clean-up Medium solution to wash MNC cells by resuspending the MNC layer with 40 mL of Clean-up Medium (B3) in a 50 mL centrifuge tube (or 10 mL in a 15 mL centrifuge tube). Centrifuge at 200G for 5 minutes.
8. Remove the supernatant, add Washing Buffer solution (included in the kit) for a second wash at 200G for 5 minutes.
9. Collect MNC and add appropriate solution/medium for the intended use.

Precautions:









Do not use the product if the packaging is damaged or cracked, if the medium has changed colour or appears turbid.

First Aid Measures:

Not applicable.

Hazards Identification:

The symbols on produce labels are explained below:

			
Use By:	Batch code	Keep away from light	Catalog number
			
Temperature Limitation	Consult instructions for use	Caution, consult accompanying documents	Sterilized using aseptic processing techniques

Related products:

Products Name	Reference Number
MNC Extraction Easy Kit	106
BMMSCult Primary	
100 mL	309
500 mL	315
BMMSCCult	
500 mL	319

To purchase other products, please visit:

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