ErythroClear™ Red Blood Cell Depletion Kit

Red blood cell depletion kit for small volume cord blood samples

Catalog #01739 Kit for processing up to 2 mL cord blood
#01738 Reagent for processing up to 2 mL cord blood

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Description

The ErythroClear™ Red Blood Cell Depletion Kit contains the ErythroClear™ Magnet and the ErythroClear™ Reagent intended for the depletion of red blood cells (RBCs) in small volumes (up to 100 µL) of fresh or frozen cord blood samples. Up to 16 cord blood samples can be processed at a time.

- Requires only 2 minutes per sample
- Significantly more effective in depleting RBCs than gravity sedimentation methods
- Compatible with downstream assays (e.g. CFU assay, CD34 flow cytometry assay, ALDEFLUOR™ [Catalog #01700], and ALDECOUNT™)
- Does not alter the frequency of CFUs or $CD34^+$, $ALDH^{br}$, and $CD34^+ALDH^{br}$ cells

Product Information

PRODUCT NAME	CATALOG #	SIZE	KIT COMPONENTS
ErythroClear™ Red Blood Cell Depletion Kit	01739	1 Kit	• ErythroClear™ Red Blood Cell Depletion Reagent (2 x 2 mL) • ErythroClear™ Magnet (1 magnet)
ErythroClear™ Red Blood Cell Depletion Reagent Kit	01738	1 Kit	• ErythroClear™ Red Blood Cell Depletion Reagent (2 x 2 mL)

Component Descriptions

Additional ErythroClear™ Red Blood Cell Depletion Reagent may be purchased separately (Catalog #01738). The ErythroClear™ Magnet is only available as part of the ErythroClear™ Red Blood Cell Depletion Kit (Catalog #01739) and is not available for individual sale.

COMPONENT NAME	COMPONENT #	QUANTITY	STORAGE	SHELF LIFE	FORMAT
ErythroClear™ Red Blood Cell Depletion Reagent	01738C	2 mL	Store at 2 - 8°C. Do not freeze.	Stable until expiry date (EXP) on label.	A suspension of magnetic particles and monoclonal antibodies in PBS.
ErythroClear™ Magnet	01737	1 magnet	Store at 15 - 25°C.	Not applicable	An anodized aluminum body housing rare earth magnetic elements.

PBS - phosphate-buffered saline

Sample Preparation

Collect cord blood in a blood collection container with anticoagulant.

For frozen cord blood samples, if a dextran-containing medium is used in the thawing process, ensure that the dextran is completely washed away before beginning the protocol. After thawing, an additional wash step with 50 mL of recommended medium should be sufficient to remove the dextran. Samples should then be adjusted to 100 µL with recommended medium.

NOTE: If dextran-containing medium is not completely washed away before beginning the protocol, the performance of the kit will be decreased.

Recommended Medium

Dulbecco's Phosphate Buffered Saline with 2% Fetal Bovine Serum (Catalog #07905). Alternatively, ALDEFLUOR™ Assay Buffer (Catalog #01701) may be used.

Directions for Use

See page 1 for Sample Preparation and Recommended Medium. Refer to Table 1 for detailed instructions regarding the procedure.

Table 1. ErythroClear™ Red Blood Cell Depletion Kit Protocol

STEP	INSTRUCTIONS	ErythroClear™ Magnet
1	**Collect cord blood sample.**	100 µL
	Add sample to required tube.	1.7 mL or 2.0 mL tube (e.g. Corning Catalog #3620)
2	**Add recommended medium to sample.**	280 µL
3	**Mix Reagent.**	Pipette up and down more than 5 times
4	**Add Reagent to diluted sample.**	170 µL
	Mix and incubate.	RT for 1 minute
5	**Place the tube (with lid open) into the magnet and incubate.**	RT for 1 minute
6	**Carefully pipette (do not pour) the supernatant into a new tube.**	RBC-depleted cells are ready for use

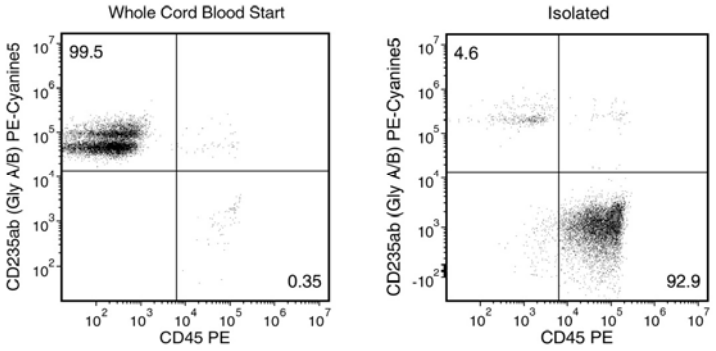
RT - room temperature (15 - 25°C)

Notes and Tips

For recovering the RBC-depleted fraction in the last step, use a standard 1 mL pipette tip (or smaller). If RBCs are accidentally drawn into the pipette tip (i.e. pipetted off with the RBC-depleted fraction), simply dispense the sample back into the tube in the magnet without re-suspending the entire sample. Wait 1 minute with the tube in the magnet, and then pipette off the RBC-depleted fraction.

Alternatively, if RBCs are visible in the RBC-depleted fraction after the last step, place the tube containing the RBC-depleted fraction back into the magnet. Wait 1 minute with the tube in the magnet, and then pipette off the RBC-depleted fraction.

Data



Representative flow cytometry plots of whole cord blood samples labeled with anti-human CD235ab (glycophorin A/B) antibody, clone HIR2 and Anti-Human CD45 Antibody, Clone HI30 (Catalog #60018) before and after RBC depletion with ErythroClear™.

Related Products

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