

CIRCULATING TUMOR CELL ENRICHMENT

With EasySep™ and RosetteSep™

Why Enrich Circulating Tumor Cells?

Circulating tumor cells (CTCs) are rare, making enrichment an important first step for many downstream research applications. Whether you're studying tumor biology, performing molecular characterization, or preparing cells for culture or further purification, STEMCELL Technologies offers CTC enrichment workflows to support a range of sample types and research applications.

Research Applications

Following enrichment, CTCs can be used for applications including:

- Cell culture
- DNA and RNA isolation
- Flow cytometry
- Microfluidic workflows
- Molecular characterization
- Single-cell analysis

Choose the Right Workflow

Your Starting Sample	Workflow Preference	Recommended Solution
Whole blood	Density gradient centrifugation	RosetteSep™
Whole blood	Direct immunomagnetic enrichment	EasySep™ Direct
Mononuclear cells from whole blood or bone marrow	Immunomagnetic enrichment	EasySep™
Whole blood, bone marrow, or mononuclear cells	Automated immunomagnetic enrichment	RoboSep™

EasySep™

Flexible immunomagnetic enrichment for multiple sample types



Use [EasySep™](#) to easily enrich CTCs from whole blood, bone marrow, or human mononuclear cells using column-free immunomagnetic cell separation. Manual workflows can also be automated with [RoboSep™](#) for standardized sample processing.

RosetteSep™

Direct enrichment from whole blood



Use [RosetteSep™](#) to enrich CTCs directly from human whole blood using density gradient centrifugation. Unwanted cells are crosslinked to red blood cells and removed during centrifugation, allowing untouched enriched cells to be collected. RosetteSep™ is compatible with [SepMate™](#) tubes for more standardized workflows.

See the Data

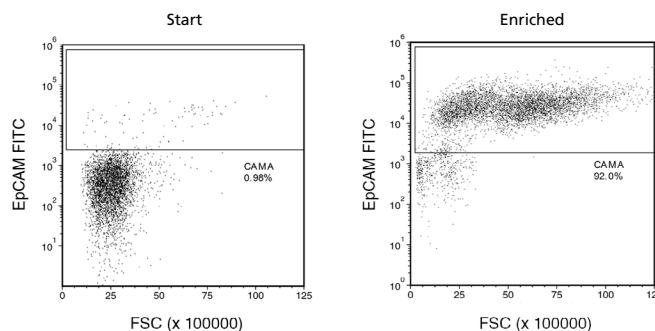


Figure 1. Typical EasySep™ Direct Human CTC Enrichment Kit Profile (Catalog #19657)

Starting with human whole blood from healthy donors spiked with approximately 1% CAMA cells (epithelial tumor cell line), the CTC (EpCAM+) content of the nonlysed final enriched fraction is $79 \pm 16\%$ (gated on DRAQ5+). Typically, the log depletion of targeted CD45+ cells ranges from 2.8 to 3.2.

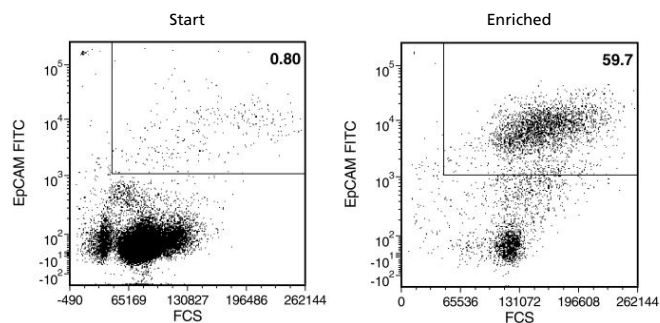


Figure 2. Typical RosetteSep™ CTC Enrichment Profile (Catalog #15177)

Starting with human whole blood from healthy donors spiked with approximately 0.8% CAMA cells (epithelial tumor cell line), the CTC (EpCAM+) content of the nonlysed final enriched fraction is 59.7% (gated on DRAQ5+). Typically, the log depletion of targeted CD45+ cells ranges from 3.2 to 4.2.

Find the Right Product for Your Workflow

EasySep™: Flexible immunomagnetic enrichment for whole blood, bone marrow, and mononuclear cells

Product	Sample Type	Key Features	Catalog #
EasySep™ Direct Human CTC Enrichment Kit	Whole blood	Direct enrichment without density gradient centrifugation	19657
EasySep™ Human CD45 Depletion Kit II	PBMCs (Fresh or Frozen)	Immunomagnetic CD45 depletion workflow	17898/17898RF

RosetteSep™: Direct enrichment from whole blood using density gradient centrifugation

Product	Sample Type	Key Features	Catalog #
RosetteSep™ Human CD45 Depletion Cocktail	Whole blood, buffy coat	General CD45 depletion	15122/15162
RosetteSep™ CTC Enrichment Cocktail Containing Anti-CD36	Whole blood, buffy coat	Alternative depletion profile	15127/15167
RosetteSep™ CTC Enrichment Cocktail Containing Anti-CD56	Whole blood, buffy coat	Alternative depletion profile	15137/15177

Complete Your Workflow

Product	Function	Catalog #
RoboSep™-S	Automate EasySep™ cell isolation	21000
SepMate™	Standardize density gradient centrifugation	IVD*: 85415/85450 RUO: 86415/86450

IVD = in vitro diagnostic; RUO = research use only

Ready to Get Started?

From evaluating CTC enrichment for the first time to refining an established workflow, STEMCELL Technologies offers the resources and products to help you move your research forward.

Our Product & Scientific Support team is available to answer your questions and help you select the right CTC enrichment workflow. Contact us at techsupport@stemcell.com.



Product Portfolio

Explore the CTC Portfolio

www.stemcell.com/ctc-enrichment



Sample Request

Request an EasySep™ Sample

www.stemcell.com/sample-easysep



Sample Request

Request a RosetteSep™ Sample

www.stemcell.com/rosettesepsample

**SepMate™ is manufactured under relevant current Good Manufacturing Practices (cGMP) and tubes are irradiated by an electron beam process that conforms to the applicable requirements of ISO 11137-1. SepMate™ is available as an in vitro diagnostic (IVD) device in Australia, Canada, the European Union (EU), South Korea, Switzerland, Turkey, the United Kingdom (UK), and the United States with an intended use of isolating mononuclear cells from whole blood or bone marrow by density gradient centrifugation. In China, SepMate™ is considered general laboratory equipment by the National Medical Products Administration (NMPA). The end user is responsible for determining whether the product is suitable for their specific application. In all other regions, SepMate™ is available as a research use only (RUO) product and is not intended for diagnostic or therapeutic uses.*

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