



# ROTBOSEP™

The Fully Automated Cell Separator

CATALOG # 20000

INTRODUCING > THE NEW REVOLUTION IN CELL SEPARATION

## [ ADVANTAGES ]

WALK-AWAY AUTOMATION USING EASYSEP® REAGENTS

+ LABELS AND SEPARATES UP TO 4 SAMPLES AT ONE TIME

+ USES DISPOSABLE TIPS, ELIMINATES CROSS-CONTAMINATION

+ NO COLUMNS!

+ FACS-COMPATIBLE MAGNETIC NANOPARTICLES

+ POSITIVE OR NEGATIVE SELECTION

+ VIRTUALLY ANY CELL TYPE

+ CUSTOMIZABLE PROGRAMS

+ CAPACITY - FROM  $2.5 \times 10^7$  TO  $8 \times 10^9$  CELLS

+ CONTACT US FOR MORE INFORMATION & INTRODUCTORY PRICING

## ROBOSEP™: FULLY AUTOMATED CELL SEPARATOR

PRODUCT NAME: **RoboSep™**  
CATALOG #: 20000

### SYSTEM IS SUPPLIED WITH:

- 4 "The Big Easy" EasySep® Magnets
- 2 Boxes of 8 RoboSep™ Tip Racks (16 Tip Racks in total)
- RoboSep™ Buffer (250 mL)
- RoboSep™ Carousel
- RoboSep™ Service Rack
- Hydraulic Fluid Bottle and Tubing
- Ethernet Cross-Over Cable
- User Manual
- One-Year Warranty
- RoboSep™ Timer
- Quick Start Sheet

### REQUIRED REAGENTS:

RoboSep™ Reagent Kit which includes:

- EasySep® Selection Kit
- Box of 8 RoboSep™ Tip Racks
- RoboSep™ Buffer (250 mL)

### DESCRIPTION:

RoboSep™ is the first instrument to offer true walk-away automation of magnetic cell separation. Using column-free EasySep® technology to isolate cells by either positive or negative selection, RoboSep™ can label and separate up to 4 samples at one time. The instrument is easily controlled via the integrated color touch screen. The pre-optimized cell separation protocols are quickly selected using the intuitive graphical user interface. Once the cell samples and the appropriate reagents are loaded into the instrument, RoboSep™ performs all the steps necessary to magnetically label and separate the cells. The instrument handles the samples and reagents using disposable tips, eliminating cross-contamination. After completion of the cell separation cycle, the cells of interest are immediately available for any application. RoboSep™ fits in a standard bio-containment hood for sterile operation.

### CAPACITY:

- **Positive selection:** up to 4 different simultaneous separations; up to  $8 \times 10^6$  total cells (four samples of up to  $2 \times 10^6$  cells each).
- **Negative selection:** up to 2 different simultaneous separations; up to  $2 \times 10^6$  total cells (two samples of up to  $10^6$  cells each).
- Negative and positive selection can be executed simultaneously.
- Sample volume: from 250 mL to 8.5 mL for each sample.

### USER INTERFACE:

- Intuitive graphical user interface.
- Integrated 8" TFT color touch-screen.
- Pre-programmed protocols for all EasySep® selection kits.
- Stores and reports user ID, sample ID and reagent lot numbers.
- Software and procedures can be updated and usage data saved, through the Ethernet or USB connections.
- Laboratory automation; can be controlled externally using XML-RPC for integration into automated processes.
- Connections: RJ-45 10/100 Ethernet port, 2 USB ports.

### TECHNICAL SPECIFICATIONS:

#### Dimensions:

- Height with lid: 56 cm (217<sup>16</sup>/<sub>32</sub>" )
- Width: 71 cm (27 7<sup>16</sup>/<sub>32</sub>" )
- Depth: 39 cm (15 3<sup>16</sup>/<sub>32</sub>" )
- Weight: 26 kg (57 lb)

**Power Requirements:** 50/60 Hz, AC 100-240V.

#### Conditions for Operation:

- Temperature: 10-30°C (50-86°F). RoboSep™ is not specified for use in a cold room (4°C, 39°F).
- Humidity 20-85% (non-condensing).

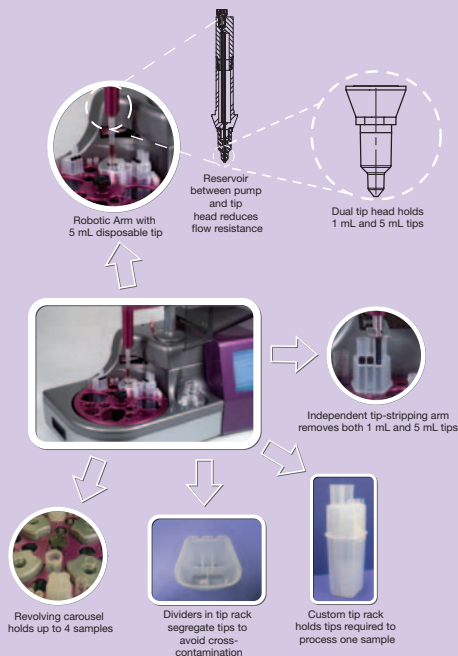


### RoboSep™ Spare Parts & Accessories

Product Name	Catalog #
Additional One-Year Warranty	20200
RoboSep™ Service Rack	20101
Hydraulic Fluid Bottle and Tubing	20102
RoboSep™ Buffer (250 mL)	20104
EasySep® RBC Lysis Buffer 10x Concentrate (100 mL)	20110
RoboSep™ Tip Racks (1 box of 8 racks)*	20105
Ethernet Cross-over Cable	20106
RoboSep™ Carousel	20107
"The Big Easy" EasySep® Magnet	18001

\* NOTE: 1 box of RoboSep™ Tip Racks and 1 RoboSep™ Buffer are included with every purchase of a RoboSep™ Reagent Kit.

# ROBOSEP™ Highlights



## Main Features

- Walk-away automation using EasySep® technology
- Labels and separates up to 4 different samples simultaneously, with up to  $2 \times 10^9$  cells per sample
- Isolates virtually any cell type
- Positive or negative selection methods
- Uses 5 mL and 1 mL disposable tips, eliminates cross-contamination
- No magnetic separation columns
- Flow cytometry-compatible magnetic nanoparticles
- Standard and user-defined protocols
- Carousel layout allows quick loading
- Touch-screen interface
- Logs and reports user ID and reagent lot numbers
- Manual back-up system
- Remote control using XML-RPC
- CE certification, ETL safety certification

## Mechanical Components

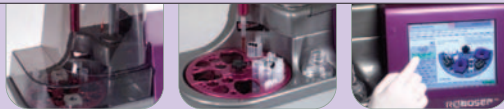
Component	Features
<b>Robotic Arm</b>	<ul style="list-style-type: none"> <li>• Automated tip loading and ejection</li> <li>• Dual tip head uses 1 mL and 5 mL tips</li> <li>• Pipetting range: 12.5 <math>\mu</math>L to 10 mL</li> <li>• Air displacement pipetting</li> </ul>
<b>Ejection Arm</b>	<ul style="list-style-type: none"> <li>• Automates tip ejection back into the tip box without cross-contamination</li> </ul>
<b>Carousel</b>	<ul style="list-style-type: none"> <li>• Can accommodate 4 magnets</li> <li>• Can accommodate up to 4 different samples</li> </ul>
<b>Hydraulics</b>	<ul style="list-style-type: none"> <li>• Reliable pump requires no user-servicing</li> <li>• Uses distilled water as hydraulic fluid, avoiding problems associated with salt crystal formation</li> <li>• Easily accessible hydraulic fluid bottle with sufficient volume for several days of operation</li> </ul>

## Typical experiment durations from mononuclear cell suspension to isolated cells

Type of Protocol	Set-Up Time	Run Time
1 positive selection	2.5 min	55 min
1 negative selection	2.5 min	45 min
2 negative selections	3 min	50 min
4 positive selections	5 min	65 min

These times are given as an example, and may vary slightly depending on the type of cells processed.

# ROBOSEP™ Reagent Kit Ordering Information



To perform cell separations, RoboSep™ uses EasySep™ reagents. For more details on any EasySep™ product, please visit [www.stemcell.com](http://www.stemcell.com). To order these products for use on RoboSep™, please use the RoboSep™ Reagent Kit catalog number (5 digits followed by the letter "R"). The RoboSep™ Reagent Kit is composed of an EasySep™ Selection Kit conveniently bundled with a box of 8 RoboSep™ Tip Racks and a bottle of RoboSep™ Buffer (250 mL).

## Human POSITIVE Selection

Cell Type	RoboSep™ Reagent Kit	EasySep® Kit
	Catalog #	Catalog #
CD3 <sup>+</sup> Cells	18051R	18051
CD4 <sup>+</sup> Cells	18052R	18052
CD8 <sup>+</sup> Cells	18053R	18053
CD10 <sup>+</sup> Cells	18358R	18358
CD14 <sup>+</sup> Cells	18058R	18058
CD19 <sup>+</sup> Cells	18054R	18054
CD25 <sup>+</sup> Cells	18251R	18251
CD33 <sup>+</sup> Cells	18257R	18257
CD34 <sup>+</sup> Cells	18056R	18056
CD45 <sup>+</sup> Depletion	18259R	18259
CD56 <sup>+</sup> Cells	18055R	18055
CD138 <sup>+</sup> Cells	18357R	18357
MUC1 <sup>+</sup> Cells	18359R	18359
EpCAM <sup>+</sup> Cells	18356R	18356
GlyA <sup>+</sup> Depletion	18352R	18352
Custom Selection	18309R	18309
PE Selection	18551R	18551
FITC Selection	18552R	18552
Biotin Selection	18553R	18553
APC Selection	18451R	18451
*Do-It-Yourself* Selection	18099R	18099

Coming Soon!

## Human NEGATIVE Selection

Cell Type	RoboSep™ Reagent Kit	EasySep® Kit
	Catalog #	Catalog #
T Cells	19051R	19051
CD4 <sup>+</sup> T Cells	19052R	19052
CD8 <sup>+</sup> T Cells	19053R	19053
B Cells	19054R	19054
NK Cells	19055R	19055
Monocytes	19058R	19058
CD16 <sup>+</sup> Monocytes	19059R	19059
Hematopoietic Progenitors	19056R	19056
Hematopoietic Progenitors with CD41 Depletion	19057R	19057
Naïve CD4 <sup>+</sup> T Cells	19155R	19155
Custom Selection	19309R	19309

## Mouse POSITIVE Selection

Cell Type	RoboSep™ Reagent Kit	EasySep® Kit
	Catalog #	Catalog #
CD90 <sup>+</sup> (Thy 1.2) Cells	18751R	18751
CD4 <sup>+</sup> Cells	18752R	18752
CD8 <sup>+</sup> Cells	18753R	18753
CD19 <sup>+</sup> Cells	18754R	18754
panNK <sup>+</sup> (CD49b <sup>+</sup> ) Cells	18755R	18755
SCA1 <sup>+</sup> Cells	18756R	18756
CD11c <sup>+</sup> Cells	18758R	18758
CD117 <sup>+</sup> (c-Kit) Cells	18757R	18757
PE Selection (10 <sup>6</sup> cells)	18554R	18554
(5 x 10 <sup>6</sup> cells)	18564R	18564
FITC Selection	18555R	18555
Biotin Selection	18556R	18556
APC Selection	18452R	18452

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## Mouse NEGATIVE Selection

Cell Type	RoboSep™ Reagent Kit	EasySep® Kit
	Catalog #	Catalog #
T Cells	19751R	19751
CD4 <sup>+</sup> T Cells	19752R	19752
CD8 <sup>+</sup> T Cells	19753R	19753
B Cells	19754R	19754
NK Cells	19755R	19755
Hematopoietic Progenitors	19756R	19756
Custom Selection	19709R	19709

## Other

Cell Type	RoboSep™ Reagent Kit	EasySep® Kit
	Catalog #	Catalog #
Any Species PE Selection	18557R	18557
Any Species FITC Selection	18558R	18558
Any Species Biotin Selection	18559R	18559
*Do-It-Yourself* Selection	18098R	18098
Any Species APC Selection	18453R	18453

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[www.stemcell.com](http://www.stemcell.com)

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## StemCell Technologies Inc | The Cell Experts™

In North America  
Tel: 604.877.0713  
Fax: 604.877.0704  
Toll Free Tel: 1.800.567.0322  
Toll Free Fax: 1.800.567.2899  
e-mail: [info@stemcell.com](mailto:info@stemcell.com)  
e-mail: [orders@stemcell.com](mailto:orders@stemcell.com)

In the United Kingdom  
Tel: +44 (0) 20 7537 7565  
Fax: +44 (0) 20 7515 5408  
Toll Free within  
United Kingdom:  
Tel: 0800 731 27 14  
Fax: 0800 731 27 13  
e-mail: [info@stemcellgb.com](mailto:info@stemcellgb.com)

In Europe  
Tel: +33 (0) 4 76 04 75 30  
Fax: +33 (0) 4 76 18 99 63  
e-mail:  
[info@stemcellfrance.com](mailto:info@stemcellfrance.com)

Please contact us directly or one of our international distributors at:  
Australia: +61 3 9790 4100; Austria: +49 2644 9512 0; Belgium: 0800 78 786;  
Czech Republic: 420 56 730 26 81; Denmark: +44 (0) 20 7537 7565;  
Finland: +44 (0) 20 7537 7565; France: +33 (0) 4 76 04 75 30; Germany: +49 2644 9512 0;  
Greece: +30 21 032 2525; Hong Kong: 852 2837 9977; Iceland: +44 (0) 20 7537 7565;  
India: +91 11 2622 7801; Ireland: +44 (0) 20 7537 7565; Israel: +972 3 344 9922;  
Italy: 02 89139 545-542; Japan: 03 3593 3211; Korea: 02 3471 6500;  
Luxembourg: +33 (0) 4 76 04 75 30; Malaysia: 603 6977 4998; Mexico: 52 55 5642 3700;  
Netherlands: 0800 020 2169; New Zealand: +64 9 460 7775; Norway: +44 (0) 20 7537 7565;  
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Slovenia: +33 (0) 4 76 04 75 30; South Africa: +27 (0) 21 981 1560; Spain: 093 446 4700;  
Sweden: +44 (0) 20 7537 7565; Switzerland: 41 716 29 00 00; Taiwan: 02 2365 6266;  
Turkey: 90 216 327 12 25; United Kingdom: +44 (0) 20 7537 7565