

ROBOSEP® EQUIPMENT

ROBOSEP® THE FULLY AUTOMATED CELL SEPARATOR

PRODUCT: RoboSep®
CATALOG #: 20000

SYSTEM IS SUPPLIED WITH:

- 4 "The Big Easy" EasySep® Magnets
- 8 RoboSep® Tip Racks (1 box)
- 1 RoboSep® Buffer (250 mL)
- RoboSep® Carousel
- RoboSep® Service Rack
- Hydraulic Fluid Bottle and Tubing
- Ethernet Cross-Over Cable
- User Manual
- One-Year Warranty

REQUIRED REAGENTS:

RoboSep® Reagent Kit (see pages 150-152) which includes:

- EasySep® Selection Kit
- 8 RoboSep® Tip Racks (1 box)
- 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.

RECOMMENDED FOR:

Simultaneous separations of up to 4 samples with minimal hands-on time; sequential separations from the same sample.

CAPACITY:

- **Positive selection:** up to 4 different simultaneous separations; up to 8×10^9 total cells (four samples of up to 2×10^9 cells each).
- **Negative selection:** up to 4 different simultaneous separations; up to 4×10^9 total cells (4 samples of up to 10^9 cells each).
- Negative and positive selection can be executed simultaneously.
- Sample volume: from 250 μ L 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 (21 7/8")
- Width: 71 cm (27 7/8")
- Depth: 39 cm (15 3/8")
- 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 PARTS & ACCESSORIES

PRODUCT NAME	CATALOG #
RoboSep® Service Rack	20101
Hydraulic Fluid Bottle	20102
RoboSep® Buffer (250 mL) ¹	20104
RoboSep® Buffer 5X Concentrate (250 mL)	20124
RoboSep® Tip Racks (1 box of 8 racks) ¹	20105
RoboSep® Filter Tip Racks (1 box of 8 racks) ¹	20125
EasySep® RBC Lysis Buffer 10X Concentrate (100 mL) ²	20120
RoboSep® Tip Head Cleaner (7 mL)	20119
RoboSep® Carousel	20107
"The Big Easy" EasySep® Magnet	18001
Limited Warranty	20200
Limited Warranty Plus Preventative Maintenance	20202
Preventative Maintenance Package	20203

¹ 1 - 2 boxes of RoboSep® Tip Racks (each containing 8 individual racks) and 1 bottle of RoboSep® Buffer are included with every purchase of a RoboSep® Reagent Kit. Tip Racks may be exchanged for Filter Tip Racks by ordering a RoboSep® Filter Tip Reagent Kit.

² 10 mL of 10X RBC Lysis Buffer is included with every purchase of an EasySep® or RoboSep® Whole Blood Selection Kit.

CELL SEPARATION

EQUIPMENT & PRODUCTS

ROBOSEP® PRODUCT LISTING

HUMAN POSITIVE SELECTION

CELL TYPE	TYPICAL PERFORMANCE DATA		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT ¹
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
CD2 ⁺	PBMC	86.3 - 98.0	18657R	18657RF
	WB	95.7 - 99.6	18687R	18687RF
CD3 ⁺	PBMC	99.4 - 99.8	18051R	18051RF
	WB	98.2 - 99.8	18081R	18081RF
CD4 ⁺	PBMC	97.4 - 99.5	18052R	18052RF
	WB	97.1 - 99.9	18082R	18082RF
CD4 ⁺ CD25 ⁺	WB	90.0 - 98.0	18231R	18231RF
CD8 ⁺	PBMC	94.0 - 99.7	18053R	18053RF
	WB	97.1 - 99.9	18083R	18083RF
CD10 ⁺	Mammary	83.8 - 98.1	18358R	18358RF
CD14 ⁺	PBMC	97.8 - 99.7	18058R	18058RF
	WB	96.5 - 99.6	18088R	18088RF
CD15 ⁺	WB	97.5 - 99.8	18681R	18681RF
CD19 ⁺	PBMC	97.0 - 99.0	18054R	18054RF
	WB	94.3 - 99.6	18084R	18084RF
Lymphoid (CD3 ⁺ & CD19 ⁺)	WB	97.9 - 99.9	18684R	18684RF
CD25 ⁺ -bright (T reg)	WB	90.0 - 98.0	15862R	15862RF
CD25 ⁺ (Pan-CD25)	PBMC	89.0 - 95.0	18251R	18251RF
CD33 ⁺	Lysed PB	93.0 - 97.0	18257R	18257RF
	WB	82.3 - 97.4	18287R	18287RF
Myeloid (CD33 ⁺ & CD66b ⁺)	PBMC	96.2 - 99.0	18653R	18653RF
	WB	94.3 - 99.1	18683R	18683RF
CD34 ⁺	Mobilized PB	84.0 - 99.0	18056R	18056RF
	CB ⁴	75.2 - 96.4	18096R	18096RF
	WB	51.7 - 90.3	18086R	18086RF
CD41 Depletion	WB	Coming Soon!	18686R	18686RF
CD44 ⁺	PBMC	Coming Soon!	18655R	18655RF
CD45 ⁺ Depletion	PB	4.0 Log Depletion	18259R	18259RF
CD45 Depletion	WB	2.0 - 4.0 Log Depletion	18289R	18289RF
CD56 ⁺	PBMC	86.0 - 98.0	18055R	18055RF
	WB	89.7 - 99.8	18085R	18085RF
CD66b ⁺	WB	99.3 - 99.9	18682R	18682RF
	BM	85.0 - 95.0	18357R	18357RF
CD138 ⁺ (Syndecan-1)	WB	89.3 - 98.4	18387R	18387RF
	Mammary	92.0 - 94.0	18356R	18356RF
MUC1 ⁺	Mammary	96.0 - 98.0	18359R	18359RF
Tie-2 ⁺	PBMC	Coming Soon!	18658R	18658RF
Glycophorin A Depletion	PBMC	2.0 - 4.0 Log Depletion	18352R	18352RF
Dead Cell Removal Kit	PBMC	Coming Soon!	18656R	18656RF
PE Selection	Use with PE-conjugated antibodies		18551R	18551RF
FITC Selection	Use with PE-conjugated antibodies		18552R	18552RF
Biotin Selection	Use with biotinylated antibodies		18553R	18553RF
APC Selection	Use with APC-conjugated antibodies		18451R	18451RF
"Do-It-Yourself" Selection	Use your own mouse IgG, antibody		18099R	18099RF
Custom	Any	-	18309R	18309RF

Each kit contains enough reagents to select desired cells from 10⁹ total cells, except for the CD34⁺ Positive Selection Kit, which can process up to 5 x 10⁸ cells, and the CD25⁺ selection kit, which can process up to 8 x 10⁸ cells. Kits contain human Fc receptor blocker when necessary to prevent nonspecific binding.

1) BM - bone marrow; CB - cord blood; PB - peripheral blood; PBMC - peripheral

blood mononuclear cells; PMNC - polymorphonuclear cells; WB - whole blood

2) Combined manual EasySep[®] and RoboSep[®] data (when available).

3) RosetteSep[®] enriched (Catalog #15062).

4) RosetteSep[®] enriched (provided).

ROBOSEP® PRODUCT LISTING

HUMAN NEGATIVE SELECTION

CELL TYPE	TYPICAL PERFORMANCE DATA		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT ¹
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
T Cells	PBMC	95.0 - 99.0	19051R	19051RF
CD4 ⁺ T Cells	PBMC	92.0 - 97.0	19052R	19052RF
Naive CD4 ⁺ T Cells	PBMC	91.0 - 95.0	19155R	19155RF
Memory CD4 ⁺ T Cells	PBMC	86.0 - 98.0	19157R	19157RF
CD8 ⁺ T Cells	PBMC	84.0 - 89.0	19053R	19053RF
B Cells	PBMC	95.0 - 99.0	19054R	19054RF
B Cells, without CD43 Depletion ³	PBMC	87.0 - 98.0	19154R	19154RF
NK Cells	PBMC	73.0 - 95.0	19055R	19055RF
Monocytes	PBMC	83.0 - 95.0	19059R	19059RF
Monocytes, without CD16 Depletion	PBMC	73.0 - 81.0	19058R	19058RF
Dendritic Cells ⁴	PBMC	40.0 - 80.0	19251R	19251RF
Eosinophils	PMNC	90.0 - 99.0	19256R	19256RF
Basophils	PMNC	92.0 - 99.0	19069R	19069RF
Neutrophils	PMNC	98.0 - 99.0	19257R	19257RF
Hematopoietic Progenitor Cells	BM	37.0 - 47.0	19056R	19056RF
Hematopoietic Progenitor Cells, with CD41 Depletion	CB	26.2 - 86.9	19057R	19057RF
Custom	Any	-	19309R	19309RF

Each kit contains enough reagents to enrich cells from 10⁷ total cells.

1) BM - bone marrow; CB - cord blood; PB - peripheral blood; PBMC - peripheral blood mononuclear cells; PMNC - polymorphonuclear cells

2) Combined manual EasySep® and RoboSep® data (when available).

3) Recommended for use with CLL and other abnormal samples.

4) Pre-enrichment kit optimized for maximum cell recovery; subsequent cell sorting may be required.

HLA ANALYSIS

CELL TYPE	TYPICAL PERFORMANCE DATA		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
T Cells	WB	93.1 - 98.0	19951HLAR	19951HLAF
B Cells	WB	81.5 - 99.7	19954HLAR	19954HLARF
CD3 ⁺	WB	98.2 - 99.8	18081HLAR	18081HLARF
Lymphocyte (CD3 ⁺ & CD19 ⁺)	WB	90.2 - 96.9	19961HLAR	19961HLARF
CD15	WB	97.5 - 99.8	18681HLAR	18681HLARF
Myeloid (CD33 ⁺ & CD66b ⁺)	WB	94.3 - 99.1	18683HLAR	18683HLARF

INSTRUMENT WARRANTIES

TYPE	DESCRIPTION	CATALOG #
Limited Warranty	1 year, extendable to 5 years; covers parts and labour	20200
Limited Warranty With Preventative Maintenance	1 year, extendable to 5 years; covers parts, labour, and travel of service representative	20202
Preventative Maintenance Package	1 year, extendable to 5 years; One Preventative Maintenance Package	20203

CELL SEPARATION

EQUIPMENT & PRODUCTS

ROBOSEP® PRODUCT LISTING

MOUSE POSITIVE SELECTION

CELL TYPE	TYPICAL PERFORMANCE DATA		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT ¹
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
CD4 ⁺	Spleen	94.0 - 99.0	18752R	18752RF
CD8 ⁺	Spleen	90.0 - 98.0	18753R	18753RF
CD11c ⁺	Cultured BM	87.0 - 98.0	18758R	18758RF
CD11c ⁺ with Spleen Dissociation Medium	Spleen	87.0 - 98.0	18768R	18768RF
CD19 ⁺	Spleen	97.0 - 99.0	18754R	18754RF
CD49b ⁺ (DX5)	Spleen	88.0 - 97.0	18755R	18755RF
CD90 ⁺ (Thy 1.2)	Spleen	96.0 - 99.0	18751R	18751RF
CD117 ⁺ (c-KIT ⁺)	BM	88.0 - 95.0	18757R	18757RF
SCA1 ⁺ PE	BM	87.0 - 97.0	18756R	18756RF
SCA1 ⁺ Biotin	BM	80.0 - 98.0	18856R	18856RF
EPCR ⁺	BM	Coming Soon!	18759R	18759RF
CD93 (AA4.1)	BM	86.7 - 98.5	18762R	18762RF
PE Selection	Use with PE-conjugated antibodies		18554R	18554RF
FITC Selection	Use with FITC-conjugated antibodies		18555R	18555RF
Biotin Selection	Use with biotinylated antibodies		18556R	18556RF
APC Selection	Use with APC-conjugated antibodies		18452R	18452RF
Custom	Any	-	18709R	18709RF

Each kit contains enough reagents to select desired cells from 2 x 10⁶ total cells.
1) BM - bone marrow

2) Combined manual EasySep® and RoboSep® data (when available).
3) EasySep® enriched.

MOUSE NEGATIVE SELECTION

CELL TYPE	TYPICAL PERFORMANCE DATA		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
T Cells	Spleen	94.6 - 98.8	19751R	19751RF
CD4 ⁺ T Cells	Spleen	94.0 - 96.0	19752R	19752RF
CD8 ⁺ T Cells	Spleen	86.0 - 94.0	19753R	19753RF
B Cells	Spleen	97.0 - 99.0	19754R	19754RF
B Cells, without CD43 Depletion ³	Spleen	Coming Soon!	19774R	19774RF
NK Cells	Spleen	75.0 - 87.0	19755R	19755RF
Dendritic Cells	Spleen	Coming Soon!	19778R	19778RF
Hematopoietic Progenitor Cells	BM	76.0 - 92.0	19756R	19756RF
Custom	Any	-	19709R	19709RF

Each kit contains enough reagents to enrich desired cells from 10⁶ total cells.
1) BM - bone marrow.

2) Combined manual EasySep® and RoboSep® data.
3) CD43 may be expressed on activated B cells and B cells from abnormal samples.

OTHER SPECIES POSITIVE SELECTION

PRODUCT NAME	DESCRIPTION		ROBOSEP® REAGENT KIT	ROBOSEP® FILTER TIP REAGENT KIT
	TISSUE ¹	% PURITY ²	CATALOG #	CATALOG #
PE Selection Kit	Use with PE-conjugated antibodies		18557R	18557RF
FITC Selection Kit	Use with FITC-conjugated antibodies		18558R	18558RF
Biotin Selection Kit	Use with biotinylated antibodies		18559R	18559RF
APC Selection Kit	Use with APC-conjugated antibodies		18453R	18453RF
"Do-It-Yourself" Selection Kit	Use your own mouse IgG ₁ antibody		18098R	18098RF
Custom	Any	-	19809R	19809RF

Each kit contains enough reagents to select desired cells from 10⁶ total cells.



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29154 | Version 1.0.0 | July 2008

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