

Frequencies of Immune Cells in Rat Tissue



Cell Type	Frequencies (% of total leukocytes) ^{1,2,3}				STEMCELL Technologies Cell Isolation Kits (Catalog #) ⁴	
	Tissue Source				Selection Method	
	Spleen	Lymph Nodes	Bone Marrow	Whole Blood	Negative ⁵	Positive ⁶
Lymphocytes FSC/SSC	65.3 ± 10.6%	91.1 ± 3.8%	31.6 ± 4.6%	85.1 ± 8.1%	—	—
Monocytes FSC/SSC	18.4 ± 4.5%	7.0 ± 3.1%	16.4 ± 1.6%	10.5 ± 7.5%	—	—
Granulocytes FSC/SSC	5.9 ± 1.8%	1.3 ± 0.5%	23.9 ± 3.4%	26.6 ± 10.5%	—	—
Pan T Cells CD3 ⁺	46.1 ± 12.6%	75.8 ± 17.3%	1.0 ± 0.6%	46.4 ± 22.1%	19641	—
TCRαβ ⁺ T Cells CD3 ⁺ TCRαβ ⁺	25.5 ± 5.0%	53.0 ± 17.4%	1.9 ± 0.7%	36.3 ± 8.4%	19609 ⁷	18609 ⁸
TCRγδ ⁺ T Cells CD3 ⁺ TCRγδ ⁺	3.1 ± 0.8%	2.0 ± 0.7%	0.6 ± 0.3%	1.5 ± 0.5%	19609 ⁷	18609 ⁸
CD4 ⁺ T Cells CD3 ⁺ CD4 ⁺	22.7 ± 7.8%	56.3 ± 12.4%	1.8 ± 1.0%	40.7 ± 18.2%	19642	—
Regulatory T Cells CD3 ⁺ CD4 ⁺ CD25 ⁺	3.2 ± 0.7%	4.6 ± 1.2%	0.3 ± 0.2%	3.5 ± 1.3%	19609 ⁷	—
CD8 ⁺ T Cells CD3 ⁺ CD8a ⁺	12.8 ± 3.9%	25.0 ± 0.9%	2.0 ± 1.0%	25.1 ± 2.7%	19643	—
NKT Cells CD3 ⁺ CD161 ⁺ CD172a ⁻	1.8 ± 0.9%	0.2 ± 0.2%	0.3 ± 0.1%	0.7 ± 0.2%	19609 ⁷	18609 ⁸
NK Cells CD3 ⁻ CD161 ⁺ CD172a ⁻	3.3 ± 0.6%	0.2 ± 0.3%	0.2 ± 0.1%	5.5 ± 0.5%	19609 ⁷	18609 ⁸
Pan B Cells CD3 ⁻ CD45RA ⁺	45.3 ± 9.9%	30.3 ± 11.4%	35.9 ± 7.0%	18.4 ± 6.9%	19644	—
IgM ⁺ B Cells CD3 ⁻ CD45RA ⁺ IgM ⁺	15.8 ± 6.4%	32.8 ± 6.2%	4.2 ± 1.2%	10.7 ± 1.7%	—	18644
IgD ⁺ B Cells CD3 ⁻ CD45RA ⁺ IgD ⁺	23.4 ± 2.1%	—	8.7 ± 0.5%	—	—	18609 ⁸
CD138 ⁺ B Cells CD3 ⁻ CD11b ⁻ CD45RA ⁺ CD138 ⁺	0.7 ± 0.4%	—	8.7 ± 4.4%	—	—	18609 ⁸
Plasma B Cells CD3 ⁻ CD11b ⁻ CD45RA ⁺ CD138 ⁺	0.6 ± 0.4%	—	0.3 ± 0.3%	—	—	18609 ⁸
CD90 ⁺ Cells CD90 ⁺	17.2 ± 5.9%	14.9 ± 2.3%	31.7 ± 6.5%	16.7 ± 7.3%	—	18958 (CD90.1 ⁺)
Neutrophils RP-1 ⁺	2.9 ± 1.7%	0.7 ± 0.2%	11.9 ± 2.4%	17.8 ± 16.3%	19609 ⁷	18609 ⁸

1. Cell type frequencies are for 8 to 24 week old male and female Sprague Dawley rats. 2. Data sourced from STEMCELL Technologies' R&D Scientists. The relative frequencies of Sprague Dawley rat immune cell subsets were characterized by flow cytometry using commercially available fluorochrome-conjugated monoclonal antibodies. 3. Values shown are percentages of total viable leukocytes in each sample (mean ± SD). 4. EasySep™/RoboSep™ Immunomagnetic Isolation. 5. Negative selection labels unwanted cells to isolate desired cells. 6. Positive selection labels and isolates desired cell types. 7. EasySep™ Rat Custom Enrichment Kit. 8. EasySep™ Rat Custom Positive Selection Kit.

Isolate Rat Immune Cells

EasySep™ is a powerful immunomagnetic cell isolation platform that combines the specificity of monoclonal antibodies with the simplicity of a column-free magnetic system for fast and easy cell isolation.

www.EasySep.com

RoboSep™ instruments allow for fully automated cell isolation of up to 16 samples, using EasySep™ reagents.

www.RoboSep.com



Scientists Helping Scientists™ | WWW.STEMCELL.COM

Copyright © 2019 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, EasySep, RoboSep, RosetteSep, HetaSep, and SepMate are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES. STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS.

DOCUMENT #27157 | VERSION 1.0.0