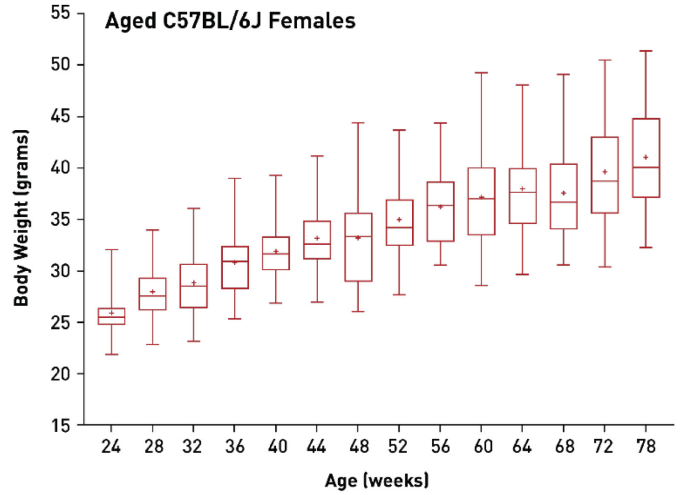
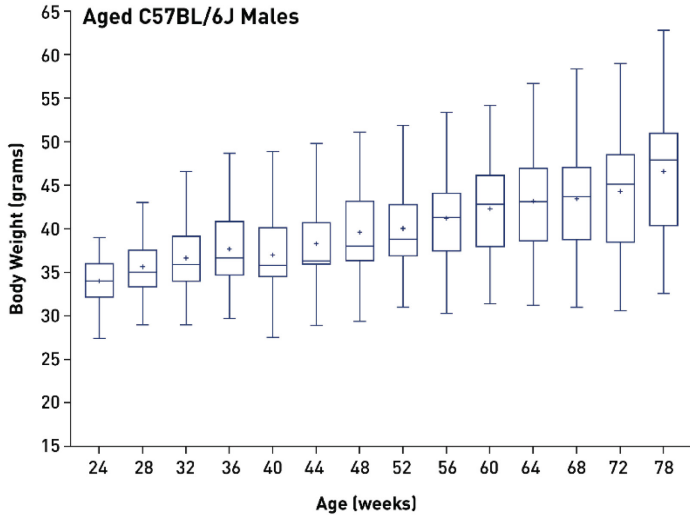


Physiological Data Summary – Aged C57BL/6J (000664)



| Body weight (grams) | | |
|---------------------|------------|------------|
| Age (weeks) | Males | Females |
| 24 | 34.0 ± 2.7 | 25.9 ± 2.4 |
| 28 | 35.7 ± 3.1 | 28.0 ± 2.7 |
| 32 | 36.7 ± 3.7 | 28.9 ± 3.2 |
| 36 | 37.7 ± 4.3 | 30.8 ± 3.2 |
| 40 | 37.0 ± 4.4 | 31.9 ± 3.1 |
| 44 | 38.3 ± 4.5 | 33.2 ± 3.5 |
| 48 | 39.6 ± 4.7 | 33.2 ± 4.7 |
| 52 | 40.0 ± 4.6 | 35.0 ± 3.9 |
| 56 | 41.2 ± 4.9 | 36.2 ± 3.8 |
| 60 | 42.3 ± 5.1 | 37.2 ± 4.8 |
| 64 | 43.2 ± 5.4 | 38.0 ± 4.8 |
| 68 | 43.5 ± 5.8 | 37.6 ± 4.8 |
| 72 | 44.3 ± 6.3 | 39.7 ± 5.0 |
| 78 | 46.6 ± 6.9 | 41.1 ± 5.4 |

Groups of 30 male and 30 female mice were weighed monthly. Mice were fed a diet containing 6% fat (LabDiet® 5K52 formulation).

In the figures above, boxes extend from the 25th to 75th percentile. The horizontal line in each box shows the median weight and + shows the mean weight. Whiskers extend to maximum and minimum weights.

The table to the left shows the mean and one standard deviation at each age.

| Hematology | | | | | | | |
|---|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Parameter | Units | Females | | | Males | | |
| Age | Weeks | 26 | 52 | 78 | 26 | 52 | 78 |
| White blood cell count (WBC) | 10 ³ cells/μL | 5.4 ± 2.6 | 5.3 ± 2.2 | 3.6 ± 1.8 | 5.2 ± 1.7 | 5.1 ± 2.4 | 7.2 ± 3.7 |
| Red blood cell count (RBC) | 10 ⁶ cells/μL | 8.6 ± 0.7 | 8.2 ± 0.7 | 8.3 ± 1.5 | 8.2 ± 0.6 | 8.1 ± 0.8 | 8.6 ± 1.0 |
| Hemoglobin | g/dL | 12.0 ± 0.6 | 11.4 ± 0.9 | 11.6 ± 1.4 | 11.5 ± 0.8 | 11.2 ± 1.0 | 11.8 ± 1.3 |
| Hematocrit | % | 38.6 ± 2.8 | 36.8 ± 3.1 | 35.4 ± 4.7 | 36.6 ± 2.0 | 34.8 ± 3.5 | 36.9 ± 4.4 |
| Mean cell volume (MCV) | fL | 44.7 ± 1.6 | 44.9 ± 1.8 | 43.1 ± 2.8 | 44.8 ± 2.4 | 43.1 ± 1.2 | 43.0 ± 1.3 |
| Mean cell hemoglobin (MCH) | pg | 14.0 ± 0.8 | 13.9 ± 0.6 | 14.1 ± 1.0 | 14.1 ± 0.5 | 13.9 ± 0.6 | 13.7 ± 0.7 |
| Mean cell hemoglobin concentration (MCHC) | g/dL | 31.3 ± 1.6 | 31.0 ± 1.5 | 32.7 ± 1.5 | 31.5 ± 1.4 | 32.3 ± 1.4 | 31.9 ± 1.2 |
| Platelet count | 10 ³ cells/μL | 800 ± 250 | 816 ± 210 | 937 ± 275 | 951 ± 226 | 852 ± 326 | 1168 ± 279 |
| Mean platelet volume (MPV) | fL | 5.0 ± 0.5 | 5.0 ± 0.2 | 5.5 ± 0.5 | 5.5 ± 0.8 | 5.2 ± 0.7 | 5.1 ± 0.3 |
| Percent reticulocytes | % | 2.9 ± 0.6 | 2.9 ± 0.5 | 3.4 ± 0.4 | 5.3 ± 1.4 | 4.5 ± 0.6 | 4.9 ± 0.5 |
| Reticulocyte hemoglobin | pg | 14.5 ± 0.6 | 14.8 ± 0.6 | 14.9 ± 0.4 | 14.3 ± 0.3 | 14.1 ± 0.5 | 14.1 ± 0.3 |
| Reticulocyte count | 10 ³ cells/L | 233 ± 61 | 234 ± 62 | 264 ± 54 | 453 ± 97 | 348 ± 81 | 397 ± 38 |
| Percent neutrophils | % | 11.4 ± 3.8 | 10.8 ± 3.7 | 17.8 ± 11.0 | 9.0 ± 3.2 | 13.7 ± 6.7 | 10.3 ± 4.3 |
| Percent lymphocytes | % | 81.6 ± 6.0 | 80.8 ± 5.5 | 74.2 ± 12.0 | 84.8 ± 4.3 | 79.1 ± 7.5 | 83.4 ± 5.5 |
| Percent monocytes | % | 4.2 ± 2.0 | 5.1 ± 1.8 | 5.4 ± 2.9 | 4.5 ± 2.6 | 4.5 ± 2.5 | 4.7 ± 2.7 |
| Percent eosinophils | % | 2.2 ± 1.7 | 2.4 ± 3.9 | 2.0 ± 2.0 | 1.4 ± 1.2 | 2.3 ± 2.8 | 1.2 ± 1.1 |
| Percent basophils | % | 0.4 ± 0.5 | 0.3 ± 0.2 | 0.2 ± 0.2 | 0.2 ± 0.2 | 0.3 ± 0.4 | 0.1 ± 0.1 |
| Neutrophil count | 10 ³ cells/μL | 0.64 ± 0.43 | 0.57 ± 0.30 | 0.62 ± 0.39 | 0.47 ± 0.21 | 0.62 ± 0.31 | 0.81 ± 0.77 |
| Lymphocyte count | 10 ³ cells/μL | 4.39 ± 2.09 | 4.33 ± 1.85 | 2.68 ± 1.43 | 4.39 ± 1.47 | 4.15 ± 2.05 | 6.00 ± 2.84 |
| Monocyte count | 10 ³ cells/μL | 0.26 ± 0.17 | 0.28 ± 0.14 | 0.22 ± 0.17 | 0.25 ± 0.17 | 0.26 ± 0.18 | 0.35 ± 0.27 |
| Eosinophil count | 10 ³ cells/μL | 0.09 ± 0.09 | 0.08 ± 0.10 | 0.05 ± 0.03 | 0.06 ± 0.05 | 0.10 ± 0.16 | 0.07 ± 0.06 |
| Basophil count | 10 ³ cells/μL | 0.03 ± 0.04 | 0.01 ± 0.01 | 0.01 ± 0.01 | 0.01 ± 0.01 | 0.01 ± 0.01 | 0.01 ± 0.01 |

| Serum Clinical Chemistry (Cardiac Blood) | | | | | | | |
|--|--------|-------------|-------------|-------------|-------------|-------------|-------------|
| Parameter | Units | Females | | | Males | | |
| Age | Weeks | 26 | 52 | 78 | 26 | 52 | 78 |
| Albumin | g/dL | 2.9 ± 0.2 | 2.9 ± 0.2 | 2.8 ± 0.2 | 2.7 ± 0.1 | 2.7 ± 0.1 | 2.8 ± 0.2 |
| Blood urea nitrogen | mg/dL | 27 ± 3 | 25 ± 4 | 24 ± 3 | 28 ± 3 | 28 ± 4 | 25 ± 3 |
| Total protein | g/dL | 5.0 ± 0.2 | 5.1 ± 0.3 | 5.2 ± 0.3 | 4.8 ± 0.2 | 5.0 ± 0.2 | 5.4 ± 0.3 |
| Calcium | mg/dL | 9.0 ± 0.5 | 9.3 ± 0.4 | 9.3 ± 0.3 | 9.0 ± 0.2 | 9.2 ± 0.2 | 9.3 ± 0.3 |
| Cholesterol | mg/dL | 76 ± 11 | 89 ± 14 | 89 ± 22 | 97 ± 15 | 119 ± 16 | 136 ± 29 |
| LDL cholesterol | mg/dL | 4.7 ± 1.2 | 5.2 ± 0.8 | 7.0 ± 2.5 | 3.2 ± 1.1 | 3.2 ± 0.6 | 4.6 ± 1.1 |
| HDL cholesterol | mg/dL | 57 ± 8 | 65 ± 10 | 64 ± 15 | 71 ± 12 | 84 ± 9 | 98 ± 17 |
| Glucose | mg/dL | 251 ± 50 | 242 ± 55 | 235 ± 54 | 254 ± 47 | 225 ± 24 | 213 ± 31 |
| Triglycerides | mg/dL | 113 ± 35 | 121 ± 49 | 91 ± 39 | 116 ± 34 | 143 ± 43 | 105 ± 34 |
| Phosphorus | mg/dl | 6.9 ± 1.9 | 6.9 ± 1.4 | 6.6 ± 1.0 | 6.8 ± 0.7 | 7.5 ± 1.0 | 6.0 ± 1.2 |
| Thyroxine/T4 | µg/dL | 4.5 ± 0.9 | 4.0 ± 0.6 | 3.8 ± 1.1 | 3.8 ± 0.7 | 3.8 ± 0.5 | 3.9 ± 0.5 |
| Sodium | mmol/L | 149 ± 5 | 150 ± 3 | 150 ± 2 | 151 ± 2 | 152 ± 2 | 146 ± 4 |
| Potassium | mmol/L | 3.7 ± 0.4 | 3.7 ± 0.4 | 3.8 ± 0.4 | 4.0 ± 0.2 | 4.4 ± 0.4 | 4.3 ± 0.4 |
| Chloride | mmol/L | 112 ± 6 | 112 ± 3 | 111 ± 3 | 111 ± 1 | 114 ± 2 | 108 ± 4 |
| Carbon dioxide | mmol/L | 16.3 ± 3.1 | 18.6 ± 2.6 | 20.9 ± 2.0 | 19.1 ± 1.9 | 18.8 ± 2.6 | 21.2 ± 2.5 |
| Free fatty acids | mEq/L | 0.95 ± 0.23 | 0.92 ± 0.23 | 0.95 ± 0.42 | 0.78 ± 0.17 | 0.90 ± 0.25 | 0.56 ± 0.12 |
| Blood Glucose (Submandibular Blood) | | | | | | | |
| Glucose (nonfasted) | mg/dL | 154 ± 25 | 185 ± 29 | 178 ± 48 | 196 ± 37 | 206 ± 33 | 169 ± 24 |
| Glucose (fasted 16h) | mg/dL | 98 ± 14 | 124 ± 33 | 119 ± 33 | 145 ± 24 | 144 ± 26 | 182 ± 32 |

| Body Composition (DEXA) | | | | | | | |
|-------------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Parameter | Units | Females | | | Males | | |
| Age | Weeks | 26 | 52 | 78 | 26 | 52 | 78 |
| Body weight (scale) | g | 26.4 ± 3.2 | 39.7 ± 2.8 | 40.4 ± 4.8 | 35.8 ± 3.1 | 36.3 ± 1.8 | 43.4 ± 5.4 |
| Bone mineral content | g | 0.44 ± 0.03 | 0.50 ± 0.06 | 0.47 ± 0.04 | 0.50 ± 0.05 | 0.56 ± 0.04 | 0.52 ± 0.07 |
| Bone area | cm ² | 8.39 ± 0.45 | 8.87 ± 1.83 | 8.65 ± 0.83 | 8.92 ± 0.85 | 9.54 ± 0.77 | 9.06 ± 1.17 |
| Bone mineral density | g/cm ² | 0.052 ± 0.002 | 0.054 ± 0.003 | 0.054 ± 0.002 | 0.057 ± 0.002 | 0.059 ± 0.003 | 0.057 ± 0.004 |
| Lean tissue | g | 17.1 ± 1.4 | 19.8 ± 0.8 | 19.9 ± 1.3 | 24.4 ± 1.4 | 26.6 ± 1.3 | 27.2 ± 2.9 |
| Fat tissue | g | 7.2 ± 2.3 | 17.2 ± 2.7 | 17.0 ± 4.2 | 7.9 ± 2.4 | 6.8 ± 1.3 | 13.3 ± 3.7 |
| Percent fat tissue | % | 29.0 ± 5.3 | 46.3 ± 4.4 | 45.5 ± 5.7 | 24.0 ± 5.6 | 20.2 ± 3.2 | 30.6 ± 7.0 |

| Organ Weights | | | | | | | |
|---------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Parameter | Units | Females | | | Males | | |
| Age | Weeks | 26 | 52 | 78 | 26 | 52 | 78 |
| Brain | g | 0.45 ± 0.03 | 0.46 ± 0.04 | 0.46 ± 0.03 | 0.46 ± 0.02 | 0.46 ± 0.01 | 0.47 ± 0.02 |
| | % of body weight | 1.70 ± 0.20 | 1.16 ± 0.11 | 1.16 ± 0.19 | 1.30 ± 0.14 | 1.28 ± 0.06 | 1.09 ± 0.16 |
| Spleen | g | 0.09 ± 0.01 | 0.10 ± 0.02 | 0.12 ± 0.02 | 0.10 ± 0.02 | 0.10 ± 0.01 | 0.09 ± 0.01 |
| | % of body weight | 0.33 ± 0.04 | 0.26 ± 0.05 | 0.30 ± 0.08 | 0.28 ± 0.07 | 0.27 ± 0.03 | 0.20 ± 0.03 |
| Left kidney | g | 0.14 ± 0.03 | 0.17 ± 0.02 | 0.18 ± 0.02 | 0.20 ± 0.02 | 0.22 ± 0.03 | 0.23 ± 0.04 |
| | % of body weight | 0.54 ± 0.11 | 0.43 ± 0.05 | 0.46 ± 0.10 | 0.56 ± 0.09 | 0.60 ± 0.08 | 0.53 ± 0.11 |
| Right kidney | g | 0.14 ± 0.02 | 0.18 ± 0.02 | 0.18 ± 0.02 | 0.19 ± 0.02 | 0.22 ± 0.02 | 0.23 ± 0.02 |
| | % of body weight | 0.55 ± 0.07 | 0.45 ± 0.05 | 0.46 ± 0.09 | 0.54 ± 0.09 | 0.61 ± 0.04 | 0.53 ± 0.09 |
| Liver | g | 1.12 ± 0.16 | 1.57 ± 0.14 | 1.58 ± 0.25 | 1.52 ± 0.20 | 1.60 ± 0.07 | 2.03 ± 0.38 |
| | % of body weight | 4.21 ± 0.38 | 3.96 ± 0.29 | 3.92 ± 0.43 | 4.23 ± 0.32 | 4.42 ± 0.23 | 4.65 ± 0.45 |
| Heart | g | 0.12 ± 0.01 | 0.13 ± 0.01 | 0.14 ± 0.01 | 0.16 ± 0.02 | 0.17 ± 0.02 | 0.17 ± 0.02 |
| | % of body weight | 0.44 ± 0.05 | 0.34 ± 0.04 | 0.34 ± 0.05 | 0.46 ± 0.08 | 0.48 ± 0.05 | 0.40 ± 0.06 |

| Spleen Flow Cytometry | | | | | | | |
|--|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Parameter | Units | Females | | | Males | | |
| Age | Weeks | 26 | 52 | 78 | 26 | 52 | 78 |
| B Cells (B220+) | % viable cells | 66.1 ± 3.4 | 65.9 ± 4.3 | 56.4 ± 7.7 | 61.7 ± 4.3 | 62.1 ± 2.8 | 70.0 ± 4.0 |
| T Cells (CD3e+) | % viable cells | 23.3 ± 2.9 | 17.3 ± 2.3 | 15.1 ± 3.3 | 19.7 ± 2.4 | 18.9 ± 1.7 | 18.5 ± 2.8 |
| Helper T Cells (CD3e+, CD4+) | % viable cells | 13.7 ± 1.5 | 11.2 ± 1.0 | 10.5 ± 2.3 | 11.5 ± 1.5 | 11.1 ± 1.1 | 10.9 ± 1.8 |
| Effector/Effector Memory (CD44 High, CD62 Low) | % viable CD4+ cells | 35.2 ± 5.8 | 65.0 ± 10.4 | 81.1 ± 5.9 | 26.7 ± 2.4 | 38.2 ± 4.3 | 50.8 ± 7.6 |
| Central Memory (CD44 High, CD62 High) | % viable CD4+ cells | 6.5 ± 0.9 | 6.3 ± 1.5 | 7.4 ± 2.1 | 6.3 ± 1.1 | 6.1 ± 1.0 | 8.7 ± 1.7 |
| Naive (CD44 Low, CD62 High) | % viable CD4+ cells | 54.4 ± 6.3 | 23.2 ± 10.3 | 8.0 ± 3.8 | 63.4 ± 3.0 | 48.2 ± 6.1 | 36.1 ± 8.5 |
| Activated Effector (CD44 Low, CD62 Low) | % viable CD4+ cells | 3.8 ± 1.2 | 5.7 ± 3.1 | 3.5 ± 1.5 | 3.7 ± 0.9 | 7.6 ± 3.7 | 4.4 ± 1.5 |
| Cytotoxic T Cells (CD3e+, CD8+) | % viable cells | 8.0 ± 1.4 | 5.0 ± 1.6 | 3.7 ± 1.1 | 7.0 ± 1.0 | 6.9 ± 0.7 | 6.8 ± 1.2 |
| Effector/Effector Memory (CD44 High, CD62 Low) | % viable CD8+ cells | 6.0 ± 4.1 | 21.7 ± 4.4 | 37.8 ± 8.5 | 6.8 ± 3.8 | 14.9 ± 5.4 | 16.6 ± 8.9 |
| Central Memory (CD44 High, CD62 High) | % viable CD8+ cells | 12.4 ± 2.6 | 12.9 ± 3.8 | 23.6 ± 7.5 | 14.7 ± 2.7 | 19.4 ± 3.8 | 27.4 ± 4.3 |
| Naive (CD44 Low, CD62 High) | % viable CD8+ cells | 74.0 ± 8.7 | 40.8 ± 10.0 | 17.6 ± 7.7 | 71.1 ± 7.9 | 53.4 ± 11.4 | 48.9 ± 10.2 |
| Activated Effector (CD44 Low, CD62 Low) | % viable CD8+ cells | 7.5 ± 6.5 | 24.6 ± 9.3 | 21.0 ± 10.8 | 7.4 ± 5.4 | 12.4 ± 8.6 | 7.1 ± 4.5 |
| Double Negative T Cells (CD3e+, CD4-, CD8-) | % viable cells | 6.6 ± 0.7 | 6.0 ± 0.8 | 5.7 ± 0.7 | 5.2 ± 0.7 | 4.2 ± 0.5 | 3.9 ± 0.6 |
| Effector/Effector Memory (CD44 High, CD62 Low) | % viable DN cells | 33.4 ± 9.9 | 46.5 ± 5.3 | 54.3 ± 11.3 | 33.7 ± 6.1 | 38.1 ± 6.3 | 41.4 ± 5.0 |
| Central Memory (CD44 High, CD62 High) | % viable DN cells | 33.2 ± 7.2 | 20.1 ± 8.9 | 17.7 ± 8.6 | 33.9 ± 5.1 | 29.8 ± 6.1 | 35.6 ± 7.1 |
| Naive (CD44 Low, CD62 High) | % viable DN cells | 22.2 ± 4.3 | 13.7 ± 2.5 | 8.5 ± 3.4 | 21.5 ± 3.9 | 17.7 ± 2.7 | 13.3 ± 3.2 |
| Activated Effector (CD44 Low, CD62 Low) | % viable DN cells | 11.2 ± 2.3 | 19.7 ± 9.2 | 19.6 ± 9.2 | 10.9 ± 2.1 | 14.4 ± 3.4 | 9.7 ± 4.0 |
| Regulatory T Cells (CD3e+, CD4+, CD25+) | % viable CD4+ cells | 14.7 ± 1.5 | 17.2 ± 2.0 | 21.5 ± 2.2 | 14.2 ± 1.3 | 16.1 ± 0.8 | 17.3 ± 1.3 |
| NK T Cells (CD3e+, CD49b+) | % viable cells | 0.87 ± 0.12 | 0.54 ± 0.14 | 0.60 ± 0.24 | 0.47 ± 0.07 | 0.42 ± 0.10 | 0.49 ± 0.09 |
| NK Cells (CD3-, B220-, CD49b+) | % viable cells | 0.82 ± 0.13 | 0.63 ± 0.19 | 0.73 ± 0.15 | 0.67 ± 0.12 | 0.52 ± 0.06 | 0.49 ± 0.11 |
| Monocytes (CD11b+, SSC Low, Gr1-) | % viable cells | 1.87 ± 0.34 | 2.05 ± 0.37 | 2.49 ± 0.93 | 2.10 ± 0.24 | 1.31 ± 0.15 | 1.45 ± 0.16 |
| CD62L+ Monocytes | % viable monocytes | 44.5 ± 8.1 | 38.9 ± 8.9 | 33.0 ± 8.1 | 39.6 ± 5.9 | 33.5 ± 5.6 | 35.3 ± 5.2 |
| CD62L- Monocytes | % viable monocytes | 55.5 ± 8.1 | 60.1 ± 8.9 | 66.1 ± 8.4 | 59.6 ± 5.9 | 65.6 ± 5.5 | 63.8 ± 5.2 |
| Neutrophils/Granulocytes (CD11b+, Gr1+) | % viable cells | 0.57 ± 0.11 | 0.90 ± 0.24 | 1.34 ± 1.23 | 0.70 ± 0.23 | 1.13 ± 0.66 | 0.64 ± 0.13 |
| Eosinophils (CD11b+, SSC High) | % viable cells | 0.29 ± 0.09 | 0.32 ± 0.10 | 0.37 ± 0.09 | 0.29 ± 0.08 | 0.24 ± 0.06 | 0.20 ± 0.04 |
| Dendritic Cells (CD11b+, SSC Low, CD11c+) | % viable cells | 0.60 ± 0.13 | 0.64 ± 0.12 | 0.81 ± 0.17 | 0.66 ± 0.09 | 0.53 ± 0.05 | 0.75 ± 0.11 |
| Plasmacytoid Dendritic Cells (CD11b+, B220+) | % viable cells | 0.34 ± 0.09 | 0.33 ± 0.06 | 0.47 ± 0.09 | 0.28 ± 0.05 | 0.19 ± 0.02 | 0.22 ± 0.06 |