

**Title:** Evaluation of inflammation and follicle depletion during ovarian ageing in mice

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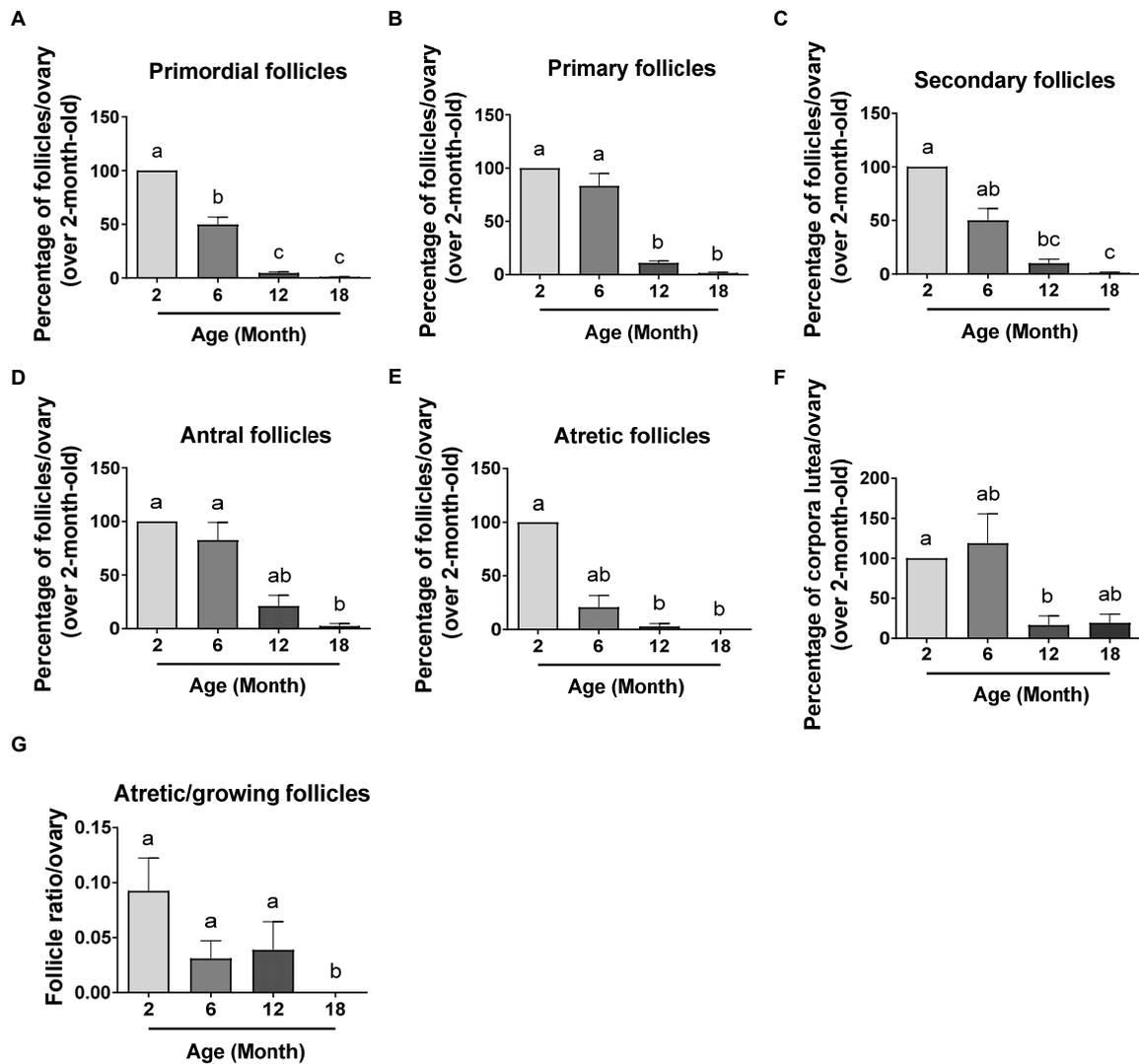
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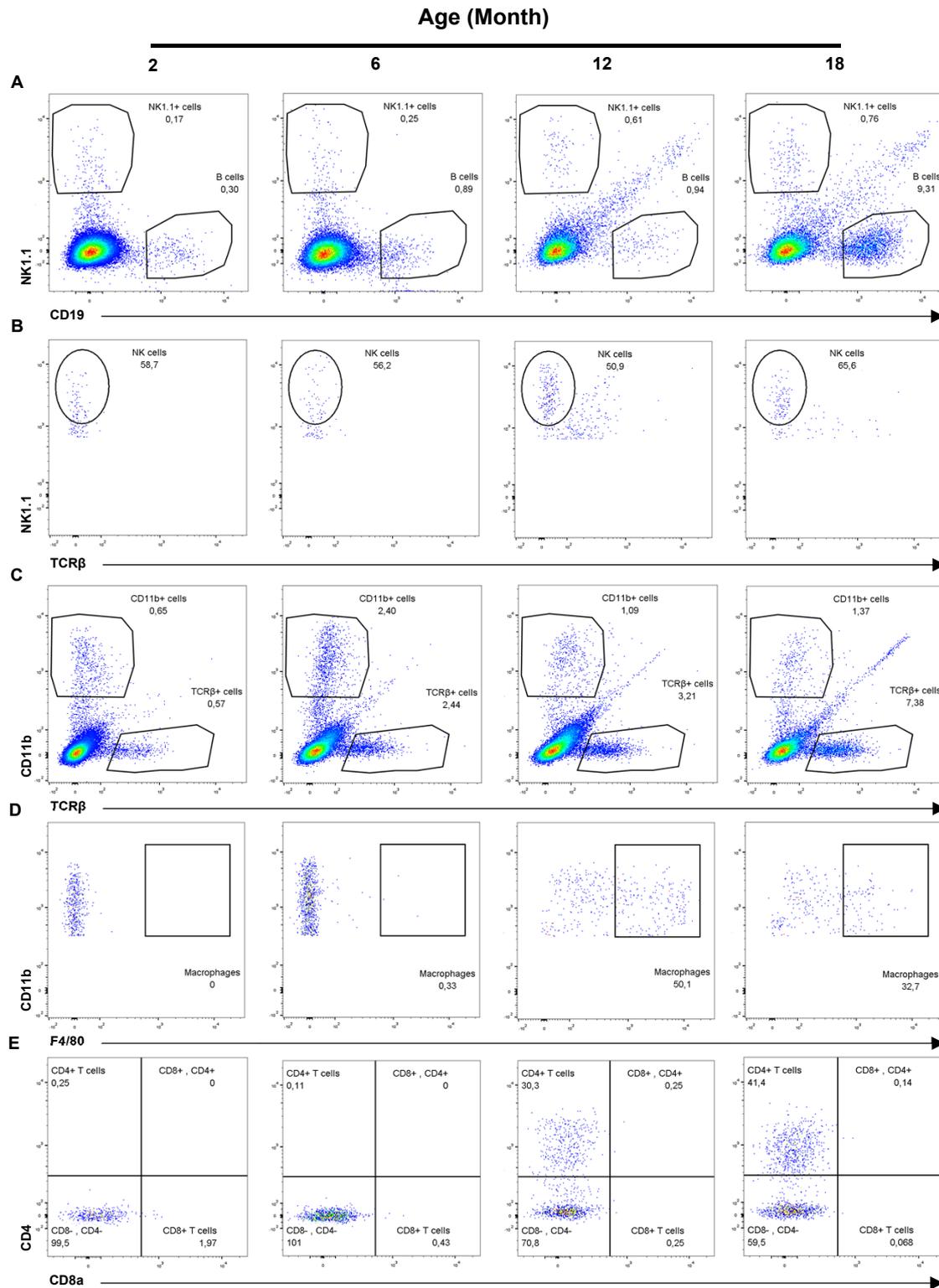
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## Supplemental Figure 1



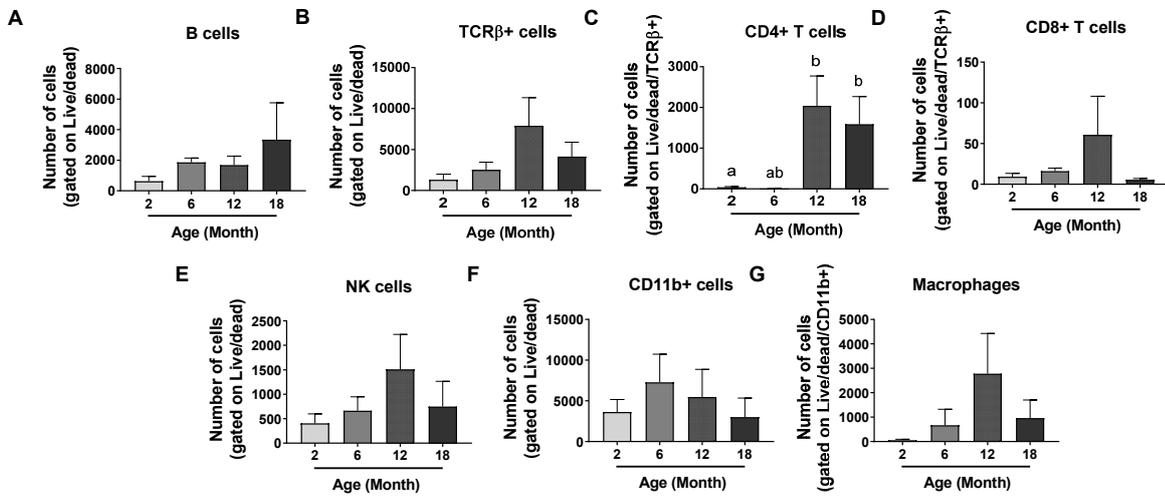
**Supplemental Figure 1.** Primordial (A), primary (B), secondary (C), antral (D), atretic follicle (E) and corpora lutea (F) percentage (relative to 2-month-old group) and ratio of atretic follicles per total number of growing follicles (secondary and antral follicles) (G) in ovaries from 2, 6, 12 and 18-month-old mice.  $n = 6$  per cohort. Data are presented as mean $\pm$ SEM; Kruskal-Wallis test, Dunn's multiple comparisons test: a, b and c are significantly different among groups ( $p < 0.05$ ); Ordinary One-way ANOVA, Tukey's multiple comparisons test: a, b and c are significantly different among groups ( $p < 0.05$ ).

## Supplemental Figure 2



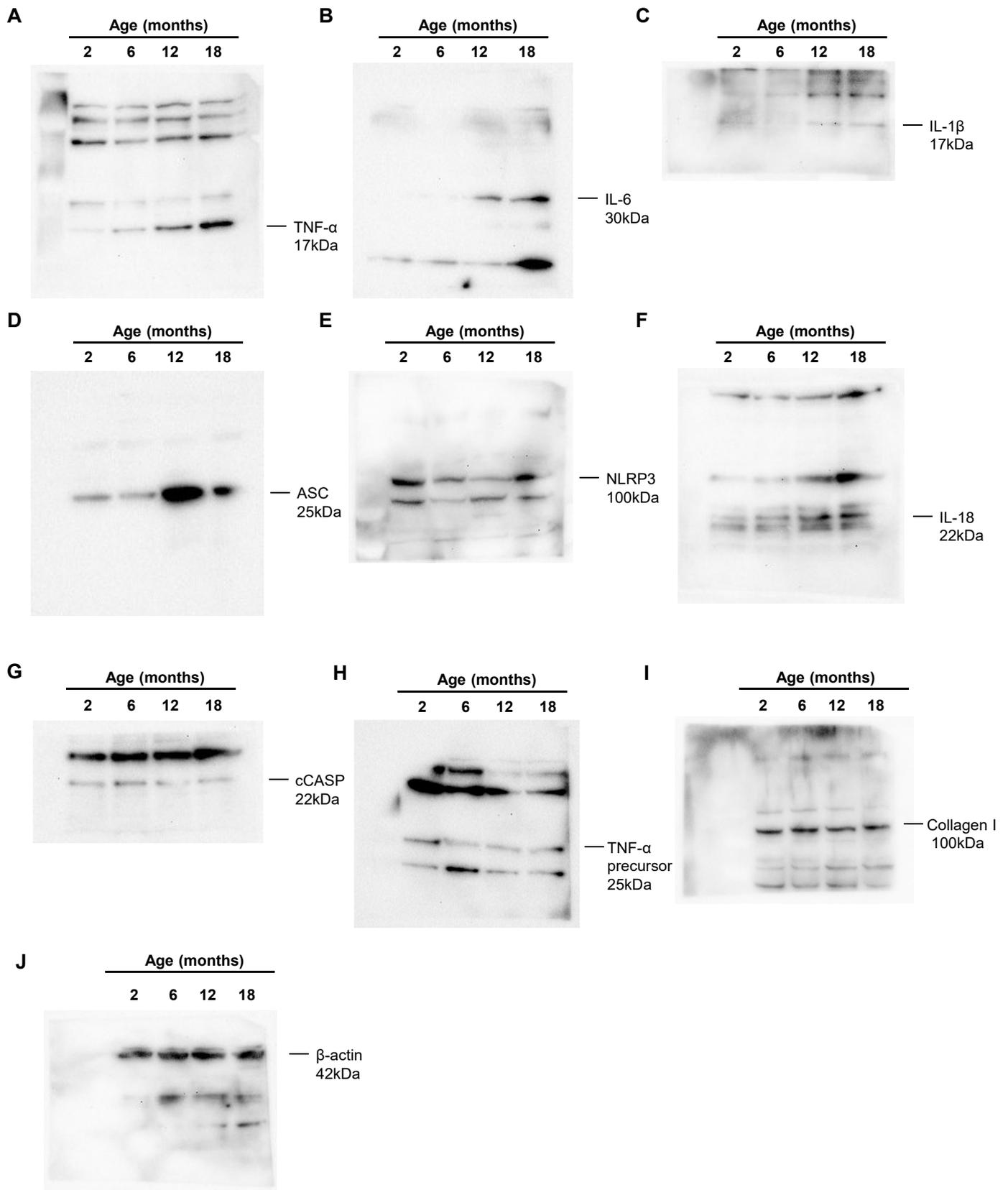
**Supplemental Figure 2.** Representative dot plots of B cells (A), NK1.1+TCRβ- NK cells (B), CD11b+ and T cells (C), F4/80+CD11b+ macrophages (D) and CD4+ and CD8+ T cells (E) identified in ovaries from 2, 6, 12 and 18-month-old mice by Flow cytometry. n = 3-5 per cohort.

## Supplemental Figure 3



**Supplemental Figure 3.** Number of B cells (A), T cells (B), CD4+ (C) and CD8+ T cells (D), NK1.1+TCRβ- NK cells (E), CD11b+ cells (F) and F4/80+CD11b+ macrophages (G) identified in ovaries from 2, 6, 12 and 18-month-old mice. n = 3-5 per cohort. Data are presented as mean±SEM; A, B, E, F and G: Kruskal-Wallis test, Dunn's multiple comparisons test (p>0.05); C and D: Ordinary One-way ANOVA, Tukey's multiple comparisons test: a and b are significantly different among groups (p<0.05).

## Supplemental Figure 4



**Supplemental Figure 4.** Representative images of full length Western blots showing ovarian protein levels of TNF- $\alpha$  (A), IL-6 (B), IL-1 $\beta$  (C), ASC (D), NLRP3 (E), IL-18 (F), cleaved Casp1 (G), TNF- $\alpha$  precursor (H), collagen I (I) and  $\beta$ -actin (J) from 2, 6, 12 and 18-month-old mice.

Supplemental Table 1. Stage of estrous cycle

| Mice age (Months) | Stage of estrous cycle |
|-------------------|------------------------|
| 2                 | Estrus                 |
|                   | Estrus                 |
|                   | Estrus                 |
|                   | Estrus                 |
|                   | Diestrus               |
| 6                 | Diestrus               |
|                   | Diestrus/Proestrus     |
|                   | Diestrus               |
|                   | Diestrus               |
| 12                | Diestrus               |
|                   | Diestrus               |
|                   | Diestrus               |
| 18                | Metestrus              |
|                   | Diestrus               |
|                   | Estrus                 |

Supplemental Table 2. List of primers used for quantitative real-time PCR

| Gene  | Sequence (5'→3')           | PCR product (bp) |
|---|----------------------------|------------------|
| <i>Asc</i> (PYD and CARD domain containing)             | F: GACAGTACCAGGCAGTTCGT    | 96               |
|   | R: AGTCCTTGCAAGTCAGGTTTC   |                  |
| <i>Gapdh</i> (glyceraldehyde-3-phosphate dehydrogenase) | F: TCCATGACAACCTTTGGCATTG  | 72               |
|   | R: CAGTCTTCTGGGTGGCAGTGA   |                  |
| <i>Casp1</i> (Caspase 1)                                | F: CACGCCCTGTTGGAAAGGAA    | 94               |
|   | R: CCCTCAGGATCTTGTCAGCCA   |                  |
| <i>Ccl5</i> (Chemokine (C-C motif) ligand 5)            | F: TTTGCCTACCTCTCCCTCG     | 85               |
|   | R: CGACTGCAAGATTGGAGCACT   |                  |
| <i>Col1a1</i> (Collagen, type I, alpha 1)               | F: CCGATGGATTCCCGTTCGAG    | 97               |
|   | R: GAGGCCTCGGTGGACATTAG    |                  |
| <i>Col4a1</i> (Collagen, type IV, alpha 1)              | F: GCGTAAGTTCAGCACCATGC    | 173              |
|   | R: CACAAACCGCACACCTGCTA    |                  |
| <i>Csf1</i> (Colony stimulating factor 1)               | F: GAACAAGGCCTGTGTCCGAA    | 161              |
|   | R: CCACATCTCGGCTAGAGCAC    |                  |
| <i>Csf2</i> (Colony-stimulating factor 2)               | F: AACTCCGAAACGGACTGTG     | 145              |
|   | R: AAGCTGGATTCAGAGCTGGC    |                  |
| <i>Il10</i> (Interleukin 10)                            | F: GCTCTTACTGACTGGCATGAG   | 105              |
|   | R: CGCAGCTCTAGGAGCATGTG    |                  |
| <i>Il18</i> (Interleukin 18)                            | F: CCTTTGAGGCATCCAGGACA    | 87               |
|   | R: GGGAACAGCCAGTGTTCAGT    |                  |
| <i>Il1a</i> (Interleukin 1 alpha)                       | F: GTATGCCTACTCGTCCGGAG    | 120              |
|   | R: GGCAACTCCTTCAGCAACAC    |                  |
| <i>Il1b</i> (Interleukin 1 beta)                        | F: GAAGAAGAGCCCATCCTCTG    | 91               |
|   | R: GGAGCCTGTAGTGCAGTTGT    |                  |
| <i>Il6</i> (Interleukin 6)                              | F: CTGCAAGAGACTTCCATCCAG   | 131              |
|   | R: AGTGGTATAGACAGGTCTGTTGG |                  |
| <i>Nlrp3</i> (NLR family, pyrin domain containing 3)    | F: CAGAGCCTACAGTTGGGTGA    | 193              |
|   | R: TAGCAGTGAAGAGCAGTGCG    |                  |
| <i>Tnfa</i> (Tumor necrosis factor alpha)               | F: CCTGGCCTCTTACCTTGTTG    | 100              |
|   | R: AGCCTGGTCACCAAATCAGC    |                  |

### Supplemental Table 3. Panel of antibodies and other stains used for Flow Cytometry

| Antibody                            | Conjugate   | Clone    | Specificity              | Concentration | Company                   |
|-------------------------------------|-------------|----------|--------------------------|---------------|---------------------------|
| CD19                                | BV650       | 1D3      | B cells                  | 1:400         | BD Biosciences,<br>563235 |
| CD4                                 | BUV395      | GK1.5    | CD4 <sup>+</sup> T cells | 1:400         | BD Biosciences,<br>563790 |
| CD8a                                | PerCP-Cy5.5 | 53-6.7   | CD8 <sup>+</sup> T cells | 1:400         | BD Biosciences,<br>551162 |
| CD11b                               | FITC        | M1/70    | CD11b <sup>+</sup> cells | 1:400         | BD Biosciences,<br>557396 |
| F4/80                               | PE          | T45-2342 | Macrophages              | 1:200         | BD Biosciences,<br>565410 |
| NK1.1                               | PE-Cy7      | PK136    | NK cells                 | 1:600         | BD Biosciences,<br>552878 |
| TCR $\beta$                         | BV510       | H57-597  | T cells                  | 1:400         | BD Biosciences,<br>563221 |
| Live/Dead<br>Viability Stain<br>700 | FVS700      | -        | Dead cells               | 1:2000        | BD Biosciences,<br>564997 |