

Table SI. Correlation analysis between TMC8 and related genes and markers of immune cells in cBioPortal.

| Immune cell         | Correlated gene | Spearman's correlation | P-value                 |
|---------------------|-----------------|------------------------|-------------------------|
| CD8+ T cell         | CD8A            | 0.55                   | 2.92x10 <sup>-40a</sup> |
|                     | CD8B            | 0.57                   | 3.24x10 <sup>-44a</sup> |
|                     | CD80            | 0.30                   | 4.42x10 <sup>-12a</sup> |
| T cell, general     | CD3D            | 0.64                   | 8.28x10 <sup>-59a</sup> |
|                     | CD3E            | 0.61                   | 4.69x10 <sup>-51a</sup> |
|                     | CD2             | 0.62                   | 3.08x10 <sup>-54a</sup> |
| B cell              | CD19            | 0.52                   | 5.59x10 <sup>-35a</sup> |
|                     | CD79a           | 0.43                   | 2.77x10 <sup>-23a</sup> |
|                     | CD79b           | 0.53                   | 1.25x10 <sup>-38</sup>  |
| Monocyte            | CD86            | 0.32                   | 3.57x10 <sup>-13a</sup> |
|                     | CD115           | 0.36                   | 9.91x10 <sup>-17a</sup> |
| TAM                 | CCL2            | 0.28                   | 3.30x10 <sup>-10a</sup> |
|                     | CD68            | 0.09                   | 0.0471 <sup>a</sup>     |
|                     | IL10            | 0.23                   | 1.41x10 <sup>-07a</sup> |
| M1 Macrophage       | INOS            | 0.23                   | 1.88x10 <sup>-07a</sup> |
|                     | IRF5            | 0.36                   | 1.47x10 <sup>-16a</sup> |
|                     | PTGS2           | -0.15                  | 7.94x10 <sup>-04a</sup> |
| M2 Macrophage       | CD163           | 0.21                   | 1.86x10 <sup>-06a</sup> |
|                     | VSIG4           | 0.20                   | 8.21x10 <sup>-06a</sup> |
|                     | MS4A4A          | 0.30                   | 9.25x10 <sup>-12a</sup> |
| Neutrophils         | CD66b           | 0.15                   | 1.13x10 <sup>-03a</sup> |
|                     | CD11b           | 0.42                   | 1.06x10 <sup>-22a</sup> |
|                     | CCR7            | 0.49                   | 2.09x10 <sup>-31a</sup> |
| Natural killer cell | KIR2DL1         | 0.24                   | 5.87x10 <sup>-08a</sup> |
|                     | KIR2DL3         | 0.32                   | 1.87x10 <sup>-13a</sup> |
|                     | KIR2DL4         | 0.39                   | 3.31x10 <sup>-19a</sup> |
|                     | KIR3DL1         | 0.28                   | 2.24x10 <sup>-10a</sup> |
|                     | KIR3DL2         | 0.38                   | 1.03x10 <sup>-18a</sup> |
|                     | KIR3DL3         | 0.27                   | 1.97x10 <sup>-09a</sup> |
|                     | KIR2DS4         | 0.29                   | 7.43x10 <sup>-11a</sup> |
| Dendritic cell      | HLA-DPβ1        | 0.52                   | 5.73x10 <sup>-35a</sup> |
|                     | HLA-DQβ1        | 0.44                   | 6.69x10 <sup>-25a</sup> |
|                     | HLA-DRA         | 0.48                   | 6.10x10 <sup>-30a</sup> |
|                     | HLA-DPA1        | 0.48                   | 8.34x10 <sup>-30a</sup> |
|                     | CD1C            | 0.33                   | 5.31x10 <sup>-14a</sup> |
|                     | CD11c           | 0.43                   | 6.96x10 <sup>-24a</sup> |
|                     | NRP1            | -0.04                  | 0.37                    |
| Th1                 | T-bet           | 0.57                   | 1.99x10 <sup>-43a</sup> |
|                     | STAT4           | 0.39                   | 3.54x10 <sup>-19a</sup> |
|                     | STAT1           | 0.20                   | 9.11x10 <sup>-06a</sup> |
|                     | IFN-γ           | 0.48                   | 3.45x10 <sup>-30a</sup> |
|                     | TNF-α           | 0.20                   | 1.04x10 <sup>-05a</sup> |
| Th2                 | GATA3           | 0.30                   | 2.16x10 <sup>-11a</sup> |
|                     | STAT6           | 0.08                   | 0.07                    |
|                     | STAT5A          | 0.50                   | 7.14x10 <sup>-33a</sup> |
|                     | IL13            | 0.32                   | 6.15x10 <sup>-13a</sup> |
| Tfh                 | BCL6            | 0.11                   | 1.46x10 <sup>-02a</sup> |
|                     | IL21            | 0.35                   | 5.03x10 <sup>-16a</sup> |
| Th17                | STAT3           | 0.16                   | 3.28x10 <sup>-04a</sup> |
|                     | IL17A           | 0.26                   | 7.53x10 <sup>-09a</sup> |
| Treg                | FOXP3           | 0.46                   | 2.85x10 <sup>-27a</sup> |
|                     | CCR8            | 0.31                   | 2.15x10 <sup>-12a</sup> |
|                     | STAT5B          | 0.12                   | 7.34x10 <sup>-03a</sup> |
|                     | TGFβ            | -0.08                  | 0.06                    |

<sup>a</sup>P<0.05. TAM, tumor-associated macrophage; Th, T helper cell; Tfh, follicular helper T cell; Treg, regulatory T cell; CSF1R, colony stimulating factor 1 receptor; CCL2, C-C motif chemokine ligand 2; IL10, interleukin 10; INOS (NOS2), nitric oxide synthase 2; IRF5, interferon regulatory factor 5; PTGS2, prostaglandin-endoperoxide synthase 2; VSIG4, V-set and immunoglobulin domain-containing 4; MS4A4A, membrane spanning 4-domains A4A; CEACAM8, carcinoembryonic antigen-related cell-adhesion molecule 8; ITGAM, integrin subunit αM; CCR7, C-C motif chemokine receptor 7; KIR2DL1, killer cell immunoglobulin-like receptor two immunoglobulin domains and long cytoplasmic tail 1; HLA-DPβ1, major histocompatibility complex class II-DPβ1; CD1C, CD1c molecule; ITGAX, integrin subunit αX; NRP1, neuropilin 1; TBX21, T-box 21; STAT4, signal transducer and activator of transcription 4; IFN-γ, interferon γ; TNF-α, tumor necrosis factor α; GATA3, GATA-binding protein 3; BCL6, BCL6 transcription repressor; FOXP3, forkhead box P3; CCR8, C-C motif chemokine receptor 8; STAT5B, signal transducer and activator of transcription 5B; TGFβ1, transforming growth factor β1.