

**Suppressor of cytokine signaling 3 (SOCS3) expressed in podocytes attenuates glomerulonephritis and suppresses autoantibody production in an imiquimod-induced lupus model**

Masashi Fukuta,<sup>1</sup> Kotaro Suzuki,<sup>1</sup> Shotaro Kojima,<sup>1</sup> Yoko Yabe,<sup>1</sup> Kazumasa Suzuki,<sup>1</sup> Kazuma Iida,<sup>1</sup> Hiroyuki Yamada,<sup>2</sup> Shinichi Makino,<sup>2</sup> Arifumi Iwata,<sup>1</sup> Shigeru Tanaka,<sup>1</sup> Taro Iwamoto,<sup>1</sup> Akira Suto,<sup>1</sup> Daiki Nakagomi,<sup>3</sup> Hidefumi Wakashin,<sup>1</sup> Yuko Maezawa,<sup>1</sup> Yoshiro Maezawa,<sup>4</sup> Minoru Takemoto,<sup>5</sup> Katsuhiko Asanuma,<sup>2</sup> and Hiroshi Nakajima<sup>1</sup>

<sup>1</sup> Department of Allergy and Clinical Immunology, <sup>2</sup> Department of Nephrology, and <sup>4</sup> Department of Endocrinology, Hematology, and Gerontology, Chiba University Graduate School of Medicine School of Medicine, Chiba, Japan. <sup>3</sup> Third Department of Internal Medicine, University of Yamanashi Faculty of Medicine Graduate School of Medicine, Kofu, Japan. <sup>5</sup> Department of Diabetes, Metabolism, and Endocrinology, International University of Health and Welfare Faculty of Medicine Graduate School of Medicine, Narita, Japan.

## Supplementary Information

### The sequences of qPCR primers

SOCS1; forward primer, CTGCGGCTTCTATTGGGGAC;  
reverse primer, AAAAGGCAGTCGAAGGTGCG

SOCS2; forward primer, AGTCGCATTCACTACACTACCTACT;  
reverse primer, TGGTACTCAATCCGCAGGTTAG

SOCS3; forward primer, ATGGTCACCCACAGCAAGTTT;  
reverse primer, TCCAGTAGAATCCGCTCTCCT

SOCS4; forward primer, CGGAGTCGAAGTGCTGACAG;  
reverse primer, ACTCAATGGACGAACAGCTAAG

SOCS5; forward primer, GAGGGAGGAAGCCGTAATGAG;  
reverse primer, CGGCACAGTTGGTTCCG

SOCS6; forward primer, AAGCAAAGACGAAACTGAGTTCA;  
reverse primer, CGCTGCCAATGTCACAAGT

SOCS7; forward primer, TCAGTCGCCTGTTCGCAC;  
reverse primer, GTTCCTCCCCGTATCCAGC

CISH; forward primer, ATGGTCCTTGCGTACAGGG;  
reverse primer, GGAATGCCAGTGGTAAG

IL-6; forward primer, TAGTCCTCCTACCCAATTCC;  
reverse primer, TTGGTCCTTAGCCACTCCTC

IL-21; forward primer, GGACCCTTGTCTGTCTGGTAG;  
reverse primer, TGTGGAGCTGATAGAAGTTCAGG

GM-CSF; forward primer, GGCCTTGGAAAGCATGTAGAGG;  
reverse primer, GGAGAACTCGTTAGAGACGACTT

TNF- $\alpha$ ; forward primer, CCCTCACACTCAGATCATCTTCT;  
reverse primer, GCTACGACGTGGGCTACAG

VEGF; forward primer, GCACATAGAGAGAATGAGCTTCC;

reverse primer, CTCCGCTCTGAACAAGGCT  
CXCL1; forward primer, CTGGGATTCACCTCAAGAACATC;  
reverse primer, CAGGGTCAAGGCAAGCCTC  
CXCL12; forward primer, TGCATCAGTGACGGTAAACCA;  
reverse primer, TTCTTCAGCCGTGCAACAATC  
GAPDH; forward primer, AGGTCGGTGTGAACGGATTG;  
reverse primer, TGTAGACCATGTAGTTGAGGTCA