## Supplementary Materials

# Involvement of M1 Macrophage Polarization in Endosomal Toll-like Receptors Activated Psoriatic Inflammation

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Running title: M1 macrophage polarization and psoriasis

Supplementary Table 1: Nucleotide sequences of primers used for quantitative real-time polymerase chain reaction (RT-qPCR) of human genes.

Supplementary Table 2: Nucleotide sequences of primers used for quantitative real-time polymerase chain reaction (RT-qPCR) of mouse genes.

Supplementary Figure 1: Efficiency of clodronate-containing liposomes in the depletion of mouse macrophages. Balb/c mice were injected with 200 μl of clodronate-containing liposomes or PBS. In the next day, the population of macrophages in blood cells was analyzed by flow cytometry. (a) The histograms shown are representative of three independent experiments. (b) Bar figure for the histograms, the data represent mean ± standard deviation (n = 3), **P < 0.01 compared with the PBS controls.

Supplementary Figure 2: Cytokine production profiles of interferin-γ and interleukin-4 polarized macrophages. THP-1 macrophages polarized treated with 20 ng/mL interferon (IFN)-γ or interleukin (IL)-4 for 24 h for M1 and M2 macrophage polarization. These cells were washed extensively and incubated for 24 h. Cytokines secreted into culture media were analyzed with Enzyme-Linked ImmunoSorbent Assay. Data represent mean ± standard deviation of three independent experiments, ***P* < .01 compared between the M1 and M2 macrophages.

Supplementary Figure 3: Induction of M1 macrophage polarization by different toll-like receptor (TLR) ligands. (a) THP-1 macrophages and (b) bone marrow-derived macrophages were treated with different TLR ligands (0.2 μg/mL Pam3Cys [TLR 2], 5 μg/mL of PolyI:C [TLR 3], and 0.2 μg/mL of LPS [TLR 4]) for 24 h. Expression of the signature genes for M1 and M2 macrophages were analyzed by quantitative real-time polymerase chain reaction (RT-qPCR). Data represent mean ± standard deviation of three independent experiments, *P < .05, ***P* < .01 compared with the controls.

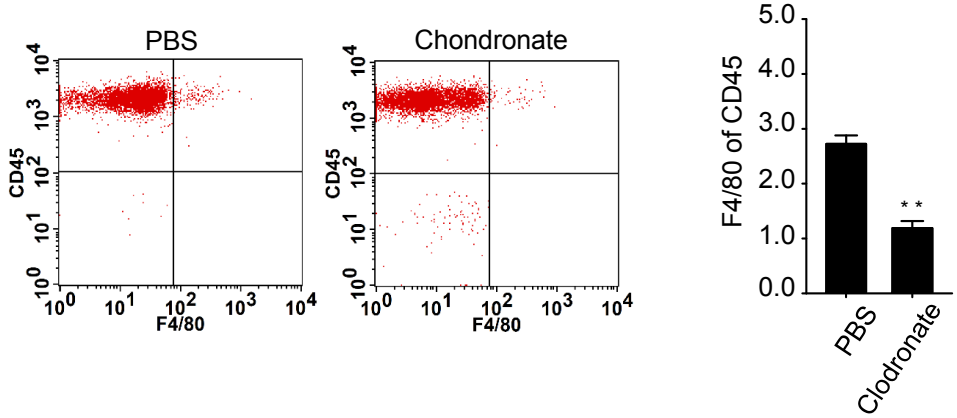
Supplementary Table 1

| Human | Forward | Reverse |
|---|---|---|
| IL-1β | ACGATGCACCTGTACGATCA | TCTTTCAACACGCAGGACAG |
| IL-6 | TACCCCCAGGAGAAGATTCC | TTTTCTGCCAGTGCCTCTTT |
| IL-12A | ACTAGAGAGACTTCTTCCACAACAAGAG | GCACAGGGTCATCATCAAAGAC |
| IL-17A | ATGAACTCTGTCCCCATCCA | TTGAAGGATGAGGGTTCCTG |
| CCL7 | ACATCGGAGACAACACCACA | GGAAGGGTCAGGAGGAAGAG |
| CCL13 | CTCCTCTGGCCTCCTCTTCT | ACCGAATACAAACCCACTGC |
| CCL19 | GGTGCCTGCTGTAGTGTTCA | GGTCCTTCCTTCTGGTCCTC |
| TLR2 | ACTTCATTCCTGGCAAGTGG | TTTTTCTCAATGGGCTCCAG |
| TLR3 | AGCCTTCAACGACTGATGCT | TTCCAGAGCCGTGCTAAGTT |
| TLR4 | TTGGGACAACCAGCCTAAAG | TGCCATTGAAAGCAACTCTG |
| TLR7 | AATGTCACAGCCGTCCCTAC | TTATTTTTACACGGCGCACA |
| TLR8 | TGTGATGGTGGTGCTTCAAT | TCGTTAAAAATGCCCCAGAG |
| TLR9 | AAAGAGGAAGGGGTGAAGGA | ACAGCAGCTACAGGGAAGGA |
| TNF-α | AACCTCCTCTCTGCCATCAA | CCAAAGTAGACCTGCCCAGA |
| CXCL11 | TCGAAGCAAGCAAGGCTTAT | GTCCTTTCACCCACCTTTCA |
| GADPH | GAGTCAACGGATTTGGTCGT | GACAAGCTTCCCGTTCTCAG |
| ARGINASE 1(ARG1) | GGCTGGTCTGCTTGAGAAAC | TTCCCACAGACCTTGGATTC |
| FLG2 | GGCCACAAAATGCTTCAAGT | AGGTTGACCACATCCAGAGG |
| NOS2(INOS) | ACAAGCCTACCCCTCCAGAT | TCCCGTCAGTTGGTAGGTTC |
| MRC1 | TGACACACTTTTGGGGATCA | AAACTTGAACGGGAATGCAC |
| MAF | AGAGACACGTCCTGGAGTCG | GCTTCCAAAATGTGGCGTAT |

Supplementary table 2

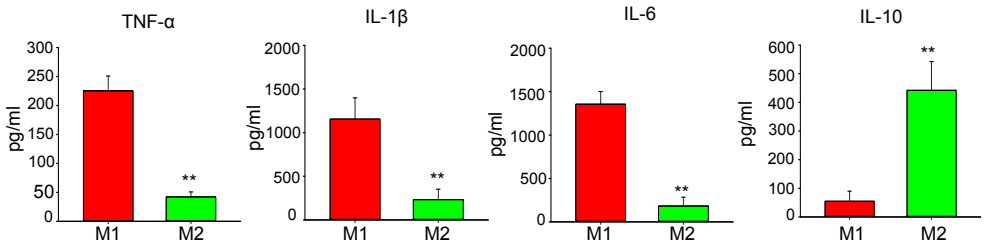
| Mouse | Forward | Reverse |
|---|---|---|
| IL-1β | CAGGCAGGCAGTATCACTCA | AGCTCATATGGGTCCGACAG |
| IL-6 | AGTTGCCTTCTTGGGACTGA | TCCACGATTTCCCAGAGAAC |
| IL-8 | CGTCCCTGTGACACTCAAGA | TAATTGGGCCAACAGTAGCC |
| IL-12A | CTCCTGTGGGAGAAGCAGAC | CAGATAGCCCATCACCCTGT |
| IL-17A | TCCAGAAGGCCCTCAGACTA | ACACCCACCAGCATCTTCTC |
| CCL2 | CAGGTCCCTGTCATGCTTCT | TCTGGACCCATTCCTTCTTG |
| CCL7 | TGTACGAGTCGGTGTGCTTC | TAGGCCCAGAAGGGAAGAAT |
| CCL19 | TTCCCAGCGGATTTTAAGTG | GCAAAAGAGGCAGACAGACC |
| CCL22 | CCTTGTTTTGATGCCCTGAT | CCTTGTTTTGATGCCCTGAT |
| CCL13 | ACAGTGGAGAAGAGGGAGCA | GGCCACGACTTCTCAGACTC |
| FLG2 | GCAACAAGGTTCTTGGGAAA | CATGCTCCTCTCCCTCACTC |
| TNF-α | AGCCCCCAGTCTGTATCCTT | CTCCCTTTGCAGAACTCAGG |
| CXCL11 | CAGTGCTGGATTCAAAAGCA | AACCCCTTAGAAGGCCTCAG |
| GADPH | ACCCAGAAGACTGTGGATGG | CACATTGGGGGTAGGAACAC |
| ARGINASE 1(ARG1) | CGCCTTTCTCAAAAGGACAG | GACATCAACAAAGGCCAGGT |
| NOS2(INOS) | CACCTTGGAGTTCACCCAGT | ACCACTCGTACTTGGGATGC |
| MRC1 | TGGCAAGTGTCCAGAGTCAG | TCCCTTCAACATTTCGGAAC |
| MAF | TCCTGAGTGGGCTTGCTAGT | AAGTTACGGGGGAATTCAGG |

Supplementary Figure 1

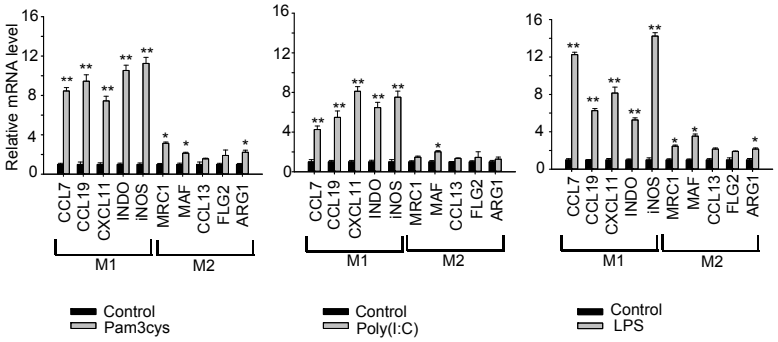



(a) (b)

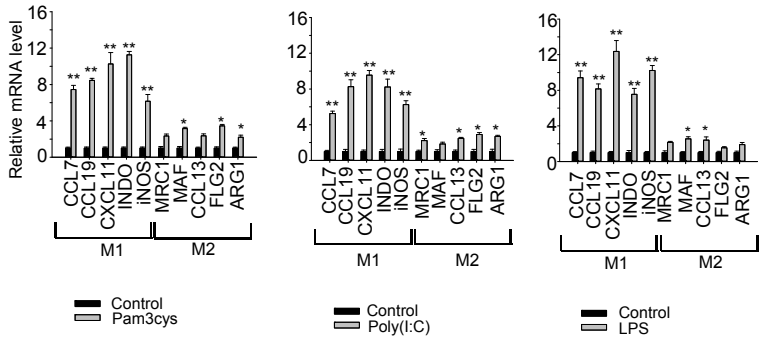
Supplementary Figure 2



Supplementary Figure 3




(a) THP-1




(b) BMDM