

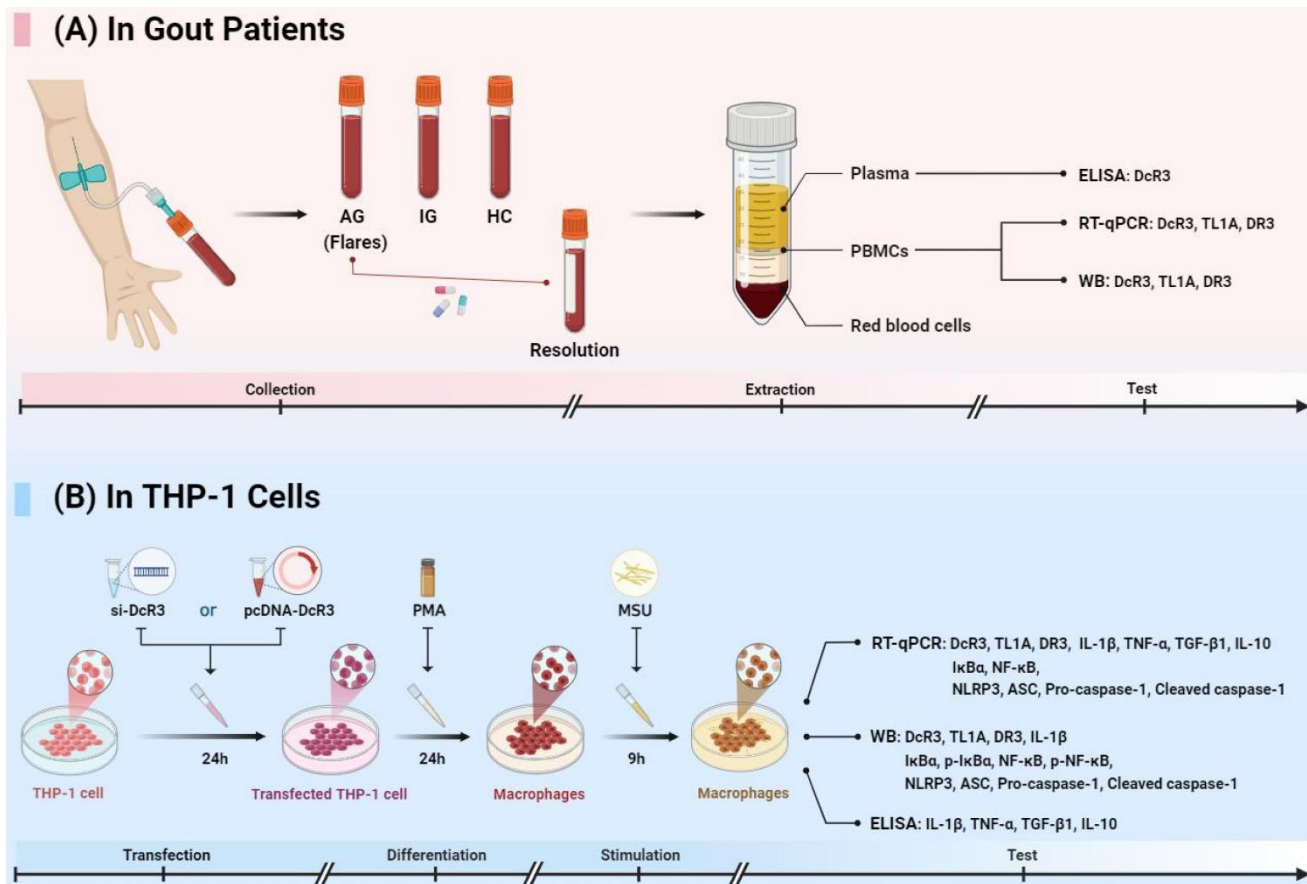
Supplementary Table 1: Clinical and laboratory data of the subjects.

Items	AG group (n = 40)	IG group (n = 40)	HC group (n = 50)
Age (years)	40.98 ± 10.75	43.43 ± 11.54	43.52 ± 11.86
Gender F/M	0/40	0/40	0/50
CRP (mg/L) ([M(P25, P75)])	5.01 (2.58–13.78) [†]	0.70 (0.32–2.32)	—
ESR (mm/h) ([M(P25, P75)])	15.50 (6.25–22.00) [†]	5.00 (2.00–11.75)	—
WBC (×10 ⁹ /L) (\bar{x} ± SD)	8.23 ± 2.62 ^{*,†}	7.07 ± 2.08 [*]	5.77 ± 1.22
GR (×10 ⁹ /L) (\bar{x} ± SD)	5.49 ± 2.20 ^{*,†}	4.44 ± 2.08 [*]	3.47 ± 0.98
LY (×10 ⁹ /L) (\bar{x} ± SD)	2.07 ± 0.73	2.04 ± 0.75	1.79 ± 0.46
Mo (×10 ⁹ /L) (\bar{x} ± SD)	0.48 ± 0.20 ^{*,†}	0.39 ± 0.12 [*]	0.32 ± 0.10
sUA (μmol/L) (\bar{x} ± SD)	528.31 ± 133.91 [*]	528.80 ± 131.93 [*]	350.48 ± 46.16
GLU (mmol/L) (\bar{x} ± SD)	5.18 ± 0.56	5.35 ± 0.94	5.31 ± 0.88
TG (mmol/L) (\bar{x} ± SD)	2.34 ± 0.99 [*]	2.61 ± 1.71 [*]	1.18 ± 0.68
TC (mmol/L) (\bar{x} ± SD)	5.08 ± 0.84	4.69 ± 0.91	4.75 ± 0.70
HDL (mmol/L) (\bar{x} ± SD)	1.03 ± 0.17 [*]	1.05 ± 0.24 [*]	1.33 ± 0.55
LDL (mmol/L) (\bar{x} ± SD)	3.03 ± 0.75 ^{*,†}	2.61 ± 0.79	2.63 ± 0.55
VLDL (mmol/L) (\bar{x} ± SD)	1.03 ± 0.67	1.03 ± 0.57	0.84 ± 0.30

[M(P25, P75)], Median (25th percentile, 75th percentile); \bar{x} ± SD: Mean ± standard deviation; AG: Acute gout; CRP: C-reactive protein; ESR: Erythrocyte sedimentation rate; F: Female; GLU: Serum glucose; GR: Granulocyte; HC: Healthy controls; HDL: High-density lipoprotein; IG: Intercritical gout; LDL: Low-density lipoprotein; LY: Lymphocyte counts; M: Male; Mo: Monocyte counts; sUA: Serum uric acid; TC: Total cholesterol; TG: Triglycerides; VLDL: Very low-density lipoprotein; WBC: White blood cell counts.

**P* < 0.05 (in comparison with the HC group).

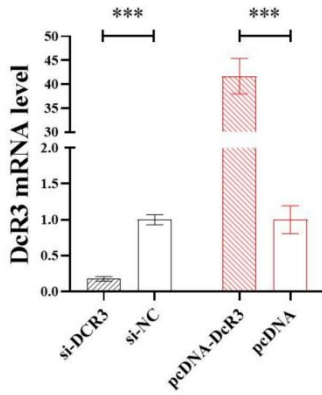
[†]*P* < 0.05 (in comparison with the IG group).



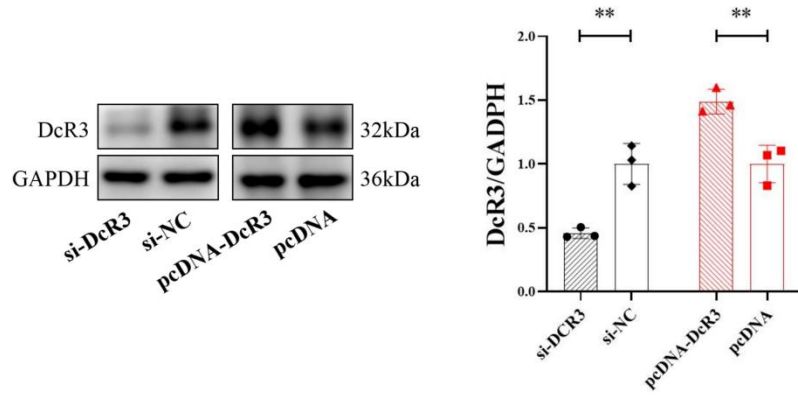
Supplementary Figure 1: Overview of experimental procedure.

(A) In gout patients (B) In THP-1 cells. AG, acute gout; IG, intercritical gout; HC, healthy controls; PBMCs, peripheral blood mononuclear cells; DcR3, Decoy receptor 3; TL1A, Human tumor necrosis factor-related ligand 1A; DR3, Death receptor 3; si-DcR3, DcR3-specific small interfering RNA; pcDNA-DcR3, overexpression plasmid of DcR3; PMA, phorbol-12-myristate-13-acetate; MSU, monosodium urate; IL-1 β , Interleukin-1 β ; TNF- α , tumor necrosis factor; TGF- β 1, transforming growth factor- β 1; IL-10, Interleukin-10; I κ B α , inhibitor kappa B alpha; p-I κ B α , Phospho-inhibitor kappa B alpha; NF κ B, Nuclear factor kappa-B; p-NF κ B, Phospho- Nuclear factor kappa-B; NLRP3, Nucleotide-binding oligomerization domain receptor protein 3; ASC, apoptosis-associated speck-like protein.

A



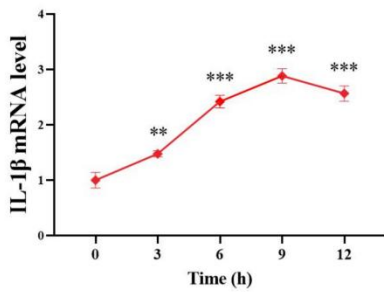
B



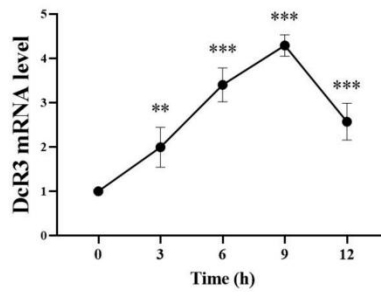
Supplementary Figure 2: Transfection efficiency of si-DcR3 or pcDNA-DcR3.

Transfection of si-DcR3 or pcDNA-DcR3 for 24 hours decreased or increased the expression of DcR3 mRNA and protein in THP-1 cells. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$. DcR3, Decoy receptor 3; si-DcR3, DcR3-specific small interfering RNA; pcDNA-DcR3, overexpression plasmid of DcR3.

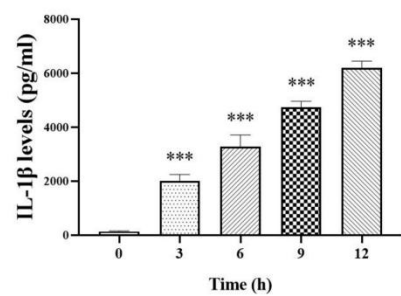
A



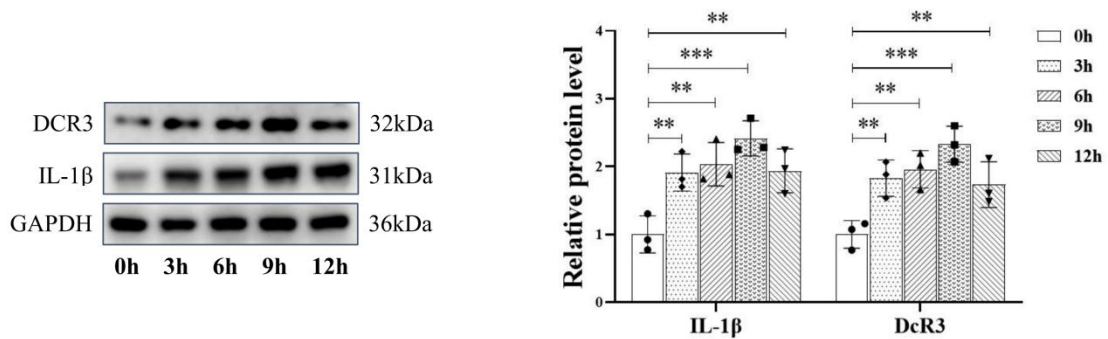
B



C



D



Supplementary Figure 3: Altered expression of DcR3 and IL-1 β in MSU-induced THP-1 cells inflammation.

(A, D) Altered expression of IL-1 β mRNA and protein upon stimulation of THP-1 cells in comparison with that of unstimulated control cultures. (C) Altered expression of IL-1 β protein concentration in the culture supernatants upon stimulation of THP-1 cells in comparison with that of unstimulated control cultures. (B, D) Altered expression of DcR3 mRNA and protein upon stimulation of THP-1 cells in comparison with that of unstimulated control cultures. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$. IL-1 β , Interleukin-1 β ; DcR3, Decoy receptor 3; MSU, monosodium urate.