

## Supporting information

**Supplementary Table 1.** Premier sequences.

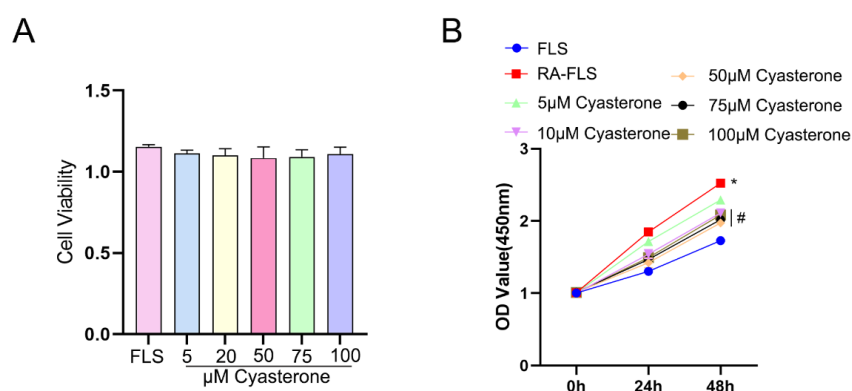
Name	Primer sequences
β-actin	F ACATCCGTAAAGACCTCTATGCC
	R TACTCCTGCTTGCTGATCCAC
TLR4	F AGACACTTTATTTCAGAGCCGTTG
	R AAGGCGATACAATTCCACC
MyD88	F TCCCAAGAAAGTGAGTCTCC
	R AAAGTACAAACACGAGCCCTT

**Supplementary Table 2.** The primary and secondary antibodies.

Name	Article No.	Species	Proportion of dilution	Manufacturer	Country
TLR4	ab13867	Rabbit	1:500	Abcam	UK
MyD88	ab133739	Rabbit	1:1000	Abcam	UK
IκBα	ab32518	Rabbit	1:2000	Abcam	UK
p-IκBα	ab133462	Rabbit	1:2000	Abcam	UK
NF-κB	66535-1-Ig	Mouse	1:1000	Proteintech	USA
p-p65	ab76302	Rabbit	1:1000	Abcam	UK
LC3	ab48394	Rabbit	2 μg/mL	Abcam	UK
Beclin 1	11306-1-AP	Rabbit	1:2000	Proteintech	USA
p62	66184-1-Ig	Mouse	1:10000	Proteintech	USA
mTOR	ab134903	Rabbit	1:10000	Abcam	UK
p-mTOR	ab109268	Rabbit	1:5000	Abcam	UK
HRP-conjugated goat-anti-mouse IgG	SA00001-1	Goat	1:5000	Proteintech	USA
HRP-conjugated goat-anti-rabbit IgG	SA00001-2	Goat	1:6000	Proteintech	USA

**Supplementary Table 3.** The scoring criteria.

Score	Criteria
0	Arthritis not present
1	Tarsal bones or ankle joints swell slightly
2	Slight swelling from the ankle to the tarsal bones
3	Moderate swelling from the ankle to the metatarsal joints
4	Serious swelling, including the ankles, feet, and digits, or ankylosis of the limb



**Supplement Figure 1.** Cyasterone effects on cell proliferation. (A) Normal FLS viability was assessed by the MTT assay. (B) Cell proliferation ability was assessed by the CCK-8 assay ( $n = 3$ ). One or two-way ANOVA was used for multiple group statistical analyses and comparisons. \* $P < 0.05$  vs. FLS, #  $P < 0.05$  vs. RA-FLS.