SUPPLEMENTARY TABLES

Table S1. Clinical characteristic of RA and OA patients

Clinical data	RA	OA
Sex		
Male	6	11
Female	40	16
Age (years)	57.1±12.1	71.1±7.2
Disease duration (years)	16.4±9.2	9.0±7.1
Tender joints [a]	13.4±5.6	1.29±0.4
Swollen joints [a]	14.2±5.2	1.46±0.6
Physical function scores [b]	0.63±0.28	/
Patients assessment [c]	7.1±1.4	/
Physician assessment [c]	6.4±1.2	/
HSS score [d]	45.3±9.6	53.4±9.2
RF (IU/ml)	160.7±131.4	/
CRP (µg/ml)	23.9±19.9	9.1±12.7
ESR (mm/h)	47.7±31.5	24.7±39.4

[a] Twenty-eight joints were assessed for tenderness, and twenty-eight were assessed for swelling. [b] The modified Standard Health Assessment questionnaire was used. Scores can change from 0 to 3, with higher scores indicating greater disease activity. [c] A 0–10 visual-analogue scale was used in which higher values indicated more severe abnormalities.[d] The Hospital for Special Surgery Knee Score (HSS) was used. Scores can change from 0 to 100, with lower scores indicating greater disease activity. Values represent the mean ±SD.

Table S2. Specific primers used in real-time PCR analysis

Name	Primer	Sequence(5'-3')
GAPDH	FW	CACATGGCCTCCAAGGAGTAA
	RV	TGAGGGTCTCTCTCTTCCTCTTGT
IL-8	FW	CCAAGGAAAA CTGGGTGCAGAG
	RV	GGCACAGGGGAACAAGGACTTG
IL-1β	FW	TTGTTGAGCCAGGCCTCTCT
	RV	ACCAAATGTGGCCGTGGTT
TNF-α	FW	TGGCCCAGGCAGTCAGA
	RV	GGTTTGCTACAACATGGGCTACA
Cyr61	FW	TCCAGCCCAACTGTAAACATCA
	RV	GGACACAGAGGAATGCAGCC

Table S3. Sequences of siRNA used in RNAi knockdown of gene expression

| siRNA		Sequence(5'-3')
Cyr61	sense	CAACGAGGACUGCAGCAAATT
	antisense	UUUGCUGCAGUCCUCGUUGAG
IL-1β	sense	GGUGAUGUCUGGUCCAUAUTT
	antisense	AUAUGGACCAGACAUCACCTT
TNF-α	sense	GCCUGUAGCCCAUGUUGUATT
	antisense	UACAACAUGGGCUACAGGCTT

Table S4. The primers used for construction of luciferase reporter plasmids

Name	Primer	Sequence(5'-3')
IL-8 (mAP-1)	FW	GTGAGATCTGAAGTGTGAT**AT**CTCAGG
	RV	GTGAAGCTTGAAGCTTGTGTGCTCTGC
IL-8 (mC/EBP)	FW	GTGAGATCTGAAGTGTGATGACTCAGGTTTGC
		CCTGAGGGGATGGGCCATCAG**CT**A**C**G**AG**TCG
	RV	GTGAAGCTTGAAGCTTGTGTGCTCTGC
IL-8 (mNF-KB)	FW	GTGAGATCTGAAGTGTGATGACTCAGGTTTGC
		CCTGAGGGGATGGGCCATCAGTTGCAAATCG
		T **TA**A**C**TTTCCTCT
	RV	GTGAAGCTTGAAGCTTGTGTGCTCTGC

The bold and underlined regions correspond to the mutation of target IL-8 promoter for IL-8 (mAP-1), IL-8 (mNF-κB) and IL-8 (mC/EBP).

SUPPLEMENTARY FIGURES
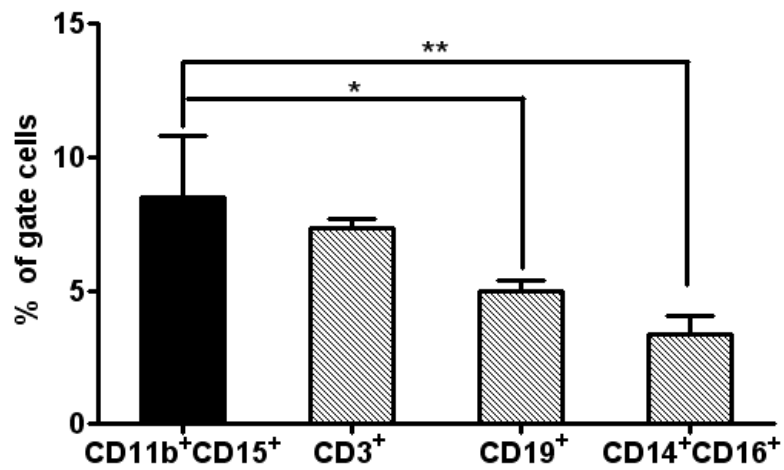
Figure S1 The occurrence and distribution of infiltrating cells in synovial tissue of RA patients. The percentage of infiltrating cells in synovial tissue from RA patients was detected by FCS. Isolation and staining of cells from ST as described in Materials and Methods. Data are representative of at least 3 independent experiments.

*P<0.05, ** P<0.01*
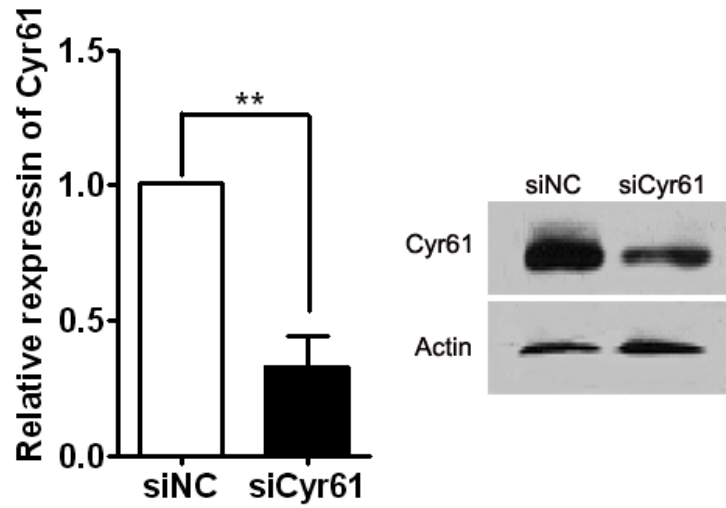
Figure S2. The sequence for siCyr61 (small interfering RNA against Cyr61) was evaluated. Expression of Cyr61 mRNA (Left panel) and the Cyr61 protein (Right panel) was inhibited in FLS treated with specific siCyr61. FLS treated with scrambled siRNA (siNC) were used as controls. Data are representative of at least 3 independent experiments. ** $P<0.01$
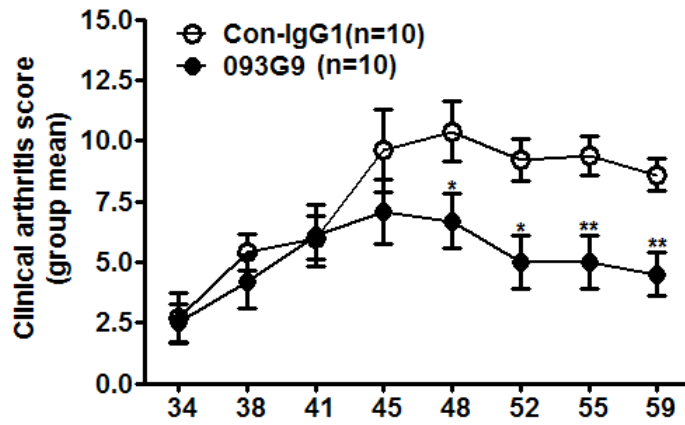
Figure S3 Ameliorated severity of CIA mice treated with anti-Cyr61 antibody.

CIA mice were injected with either con-IgG1 or anti-Cyr61 mAb 093G9, twice a week starting at day 34 and continuing until day 59, and clinical score and severity of CIA were monitored and scored as described in Materials and Methods. Anti-Cyr61 mAb 093G9 significantly decreased arthritis severity compared with that in IgG1-treated mice. Control (○), 093G9 (●). Data represent the mean ± SEM of 10 mice per group. *P<0.05, ** P<0.01
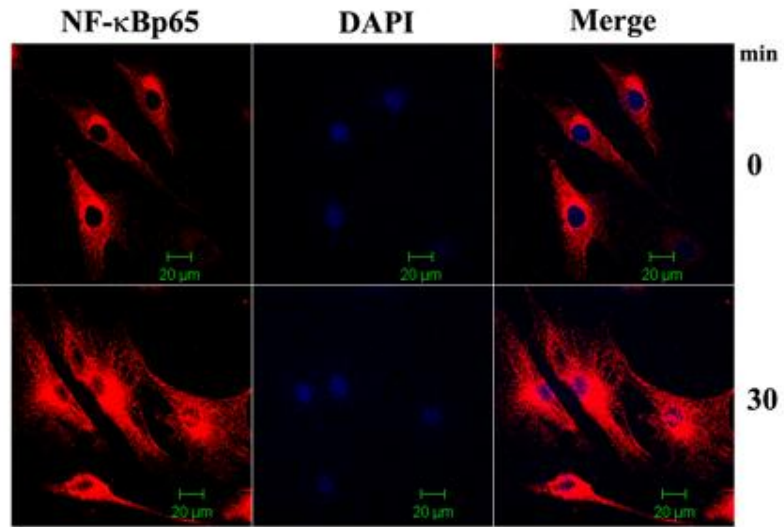
Figure S4 Cyr61 induced nuclear translocation of NF-κB in FLS. Up: unstimulated FLS, down: stimulated with Cyr61 (5 μg/ml) for 30 min. NF-κB was detected by anti-p65 (red). Nuclei were stained with DAPI (blue). Merged picture shows NF-κB translocation into the nucleus. The data represent one of the three independent experiments.