

**Supplementary Table 1. Mouse primers of cytokines**

	Forward primer	Reverse primer
IL-1 $\beta$	GAGCCCATCCTCTGTGACTC	TCCATTGAGGTGGAGAGCTT
IL-10	CAGCCGGGAAGACAATAACT	TCATTCCGATAAGGCTTGG
TGF $\beta$	CCTGCAAGACCATCGACATG	TGTTGTACAAAGCGAGCACC
TNF $\alpha$	ACGGCATGGATCTCAAAGAC	AGATAGCAAATCGGCTGACG
$\beta$ -actin	CATCCGTAAAGACCTCTATGCCAAC	ATGGAGCCACCGATCCACA

**Supplementary Table 2. Human primers of cytokines**

	Forward primer	Reverse primer
IL-1 $\alpha$	TCAAGGAGAGCATGGTGGTA	GTGCTGACCTAGGCTTGATG
IL-1 $\beta$	AGCTCGCCAGTGAAATGATG	CGGAGATTCGTAGCTGGATG
IL-2	AACCTCTGGAGGAAGTGCTA	AATGGTTGCTGTCTCATCAGC
IL-10	CCTGCCTAACATGCTTCGAG	GTCTTGGTTCTCAGCTTGGG
TGF $\beta$	GACTCGCCAGAGTGGTTATC	GGTAGTGAACCCGTTGATGT
TNF $\alpha$	ATCATCTTCTCGAACCCCGA	GTTATCTCTCAGCTCCACGC
$\beta$ -actin	TGACGGGGTCACCCACACTG	AAGCTGTAGCCGCGCTCGGT

**Supplementary Table 3. Alignment results of *L. paracasei***

Subject acc.	% identity	Alignment length	Mismatches	Q. start	Q. end	S. start	S. end	E value	Bit score
<i>Lactobacillus paracasei</i> strain R094 16S ribosomal RNA gene, partial sequence	100	1522	0	999528	1001049	1522	1	0	2811
	99.934	1522	1	2389192	2390713	1	1522	0	2806
	99.869	1522	2	1668500	1670021	1522	1	0	2800
	99.869	1522	2	3051581	3053102	1	1522	0	2800
	100	1326	0	1	1326	197	1522	0	2449
	98.98	196	2	3070945	3071140	1	196	1.00E-92	351
<i>Lactobacillus paracasei</i> strain NBRC 15889 16S ribosomal RNA gene, partial sequence	99.933	1495	1	999555	1001049	1495	1	0	2758
	99.866	1495	2	2389192	2390686	1	1495	0	2752
	99.799	1495	3	1668527	1670021	1495	1	0	2747
	99.799	1495	3	3051581	3053075	1	1495	0	2747
	99.923	1299	1	1	1299	197	1495	0	2396
	98.98	196	2	3070945	3071140	1	196	1.00E-92	351
<i>Lactobacillus paracasei</i> subsp. tolerans strain NBRC 15906 16S ribosomal RNA gene, partial sequence	99.866	1496	0	999555	1001048	1497	2	0	2750
	99.799	1496	1	2389193	2390686	2	1497	0	2745
	99.733	1496	2	1668527	1670020	1497	2	0	2739
	99.733	1496	2	3051582	3053075	2	1497	0	2739
	99.846	1301	0	1	1299	197	1497	0	2390
	98.974	195	2	3070946	3071140	2	196	3.60E-92	350

<i>Lactobacillus</i> <i>paracasei</i> strain ATCC 25302 16S ribosomal RNA gene, partial sequence	99.792	1442	1	999587	1001027	1441	1	0	2645
	99.723	1442	2	2389214	2390654	1	1441	0	2639
	99.653	1442	3	1668559	1669999	1441	1	0	2634
	99.653	1442	3	3051603	3053043	1	1441	0	2634
	99.921	1267	1	1	1267	175	1441	0	2335
	97.714	175	2	3070967	3071140	1	174	3.67E-77	300

**Supplementary Fig. 1. Effects of LpEVs on *E.coli* EV-induced inflammatory responses in murine macrophages**

(a) Cytotoxicity of RAW 264.7 cells (b) TNF $\alpha$  secretion (c) NO production (N=3 for each experimental group). \* $P$ <0.01 compared with vehicle-treated control cells. # $P$ <0.01 compared with LPS-treated cells without LpEVs.

