

Table 1. Primers for Real-time PCR.

Primer	Sequence (5' → 3')
GAPDH forward	TGGAAAGCTGTGGCGTGAT
GAPDH reverse	TGCTTCACCACCTTCTTGAT
TNF- α forward	GATCGGTCCCCAAAGGGATG
TNF- α reverse	TGAGGGTCTGGGCCATAGAA
IL-6 forward	GCTACCAAACCTGGATATAATCAGGA
IL-6 reverse	CCAGGTAGCTATGGTACTCCAGAA
Atrogin-1 forward	GAGGCAGATTTCGCAAGCGTTTGAT
Atrogin-1 reverse	TCCAGGAGAGAATGTGGCAGTGTT

Table S2. Chemical composition of HAP, SHAP and Cur-SHAP from EDS analysis by atomic ratio. The molar ratio of calcium to phosphorus in the Cur-SHAP that was 1.42.

Sample	C	O	P	Ca	Ca/P
	Atomic %	Atomic %	Atomic %	Atomic %	
HAP	17.92	53.78	10.62	17.69	1.6
SHAP	6.08	59.68	13.42	20.82	1.5
Cur-SHAP	51.01	38.70	4.24	6.05	1.4

Table S3. Safety of Cur-SHAP in vivo by blood element analysis. Reference: Charles River Laboratories, CD® IGS Rat Model Information Sheet. All results indicated no sign of chronic toxicity in Cur-SHAP.

	Control	LPS	LPS-BSP-HAP
RBC (M/ μ L)	9.23 \pm 0.48	8.24 \pm 0.21	8.96 \pm 0.09
HGB (g/dL)	16.10 \pm 0.56	14.25 \pm 0.35	16.10 \pm 0.14
HCT (%)	53.15 \pm 2.89	46.10 \pm 0.70	51.60 \pm 0.70

MCV (fL)	57.60 ± 0.14	55.95 ± 0.63	57.55 ± 0.07
MCH (pg)	17.45 ± 0.35	17.30 ± 0.01	17.95 ± 0.07
MCHC (g/dL)	30.30 ± 0.56	30.90 ± 0.28	31.20 ± 0.14
RET (K/ µL)	249.10 ± 7.77	243.50 ± 6.92	197.60 ± 4.10
PLT (K/ µL)	1032.50 ± 7.77	1284.50 ± 54.85	1195.50 ± 24.74
WBC (K/ µL)	15.95 ± 0.62	19.99 ± 0.82	12.90 ± 0.26
NEUT (%)	11.90 ± 0.28	23.65 ± 17.04	22.80 ± 0.56
LYMPH (%)	76.35 ± 0.49	83.50 ± 7.77	70.50 ± 1.27
MONO (%)	5.80 ± 0.84	7.15 ± 0.21	5.30 ± 0.56
EO (%)	0.50 ± 0.01	1.25 ± 1.20	1.15 ± 0.07
BASO (%)	0.20 ± 0.01	0.15 ± 0.07	0.25 ± 0.07

RBC: red blood cell; HGB: hemoglobin; HCT: hematocrit; MCV: mean corpuscular volume; MCH: mean corpuscular hemoglobin; MCHC: mean corpuscular hemoglobin concentration; PLT: platelet; WBC: white blood cell; NEUT: neutrophil; LYMPH: lymphocyte; MONO: monocyte; EO: eosinophil; BASO: basophil.

	Control	LPS	LPS-Cur-SHAP
RBC (M/ μ L)	9.23 \pm 0.48	8.24 \pm 0.21	8.96 \pm 0.09
HGB (g/dL)	16.10 \pm 0.56	14.25 \pm 0.35	16.10 \pm 0.14
HCT (%)	53.15 \pm 2.89	46.10 \pm 0.70	51.60 \pm 0.70
MCV (fL)	57.60 \pm 0.14	55.95 \pm 0.63	57.55 \pm 0.07
MCH (pg)	17.45 \pm 0.35	17.30 \pm 0.01	17.95 \pm 0.07
MCHC (g/dL)	30.30 \pm 0.56	30.90 \pm 0.28	31.20 \pm 0.14
RET (K/ μ L)	249.10 \pm 7.77	243.50 \pm 6.92	197.60 \pm 4.10
PLT (K/ μ L)	1032.50 \pm 7.77	1284.50 \pm 54.85	1195.50 \pm 24.74
WBC (K/ μ L)	15.95 \pm 0.62	19.99 \pm 0.82	12.90 \pm 0.26
NEUT (%)	11.90 \pm 0.28	23.65 \pm 17.04	22.80 \pm 0.56
LYMPH (%)	76.35 \pm 0.49	83.50 \pm 7.77	70.50 \pm 1.27
MONO (%)	5.80 \pm 0.84	7.15 \pm 0.21	5.30 \pm 0.56
EO (%)	0.50 \pm 0.01	1.25 \pm 1.20	1.15 \pm 0.07
BASO (%)	0.20 \pm 0.01	0.15 \pm 0.07	0.25 \pm 0.07

RBC: red blood cell; HGB: hemoglobin; HCT: hematocrit; MCV: mean corpuscular volume; MCH: mean corpuscular hemoglobin; MCHC: mean corpuscular hemoglobin concentration; PLT: platelet; WBC: white blood cell; NEUT: neutrophil; LYMPH: lymphocyte; MONO: monocyte; EO: eosinophil; BASO: basophil.