Supplementary Figure Legends

FIGURE S1

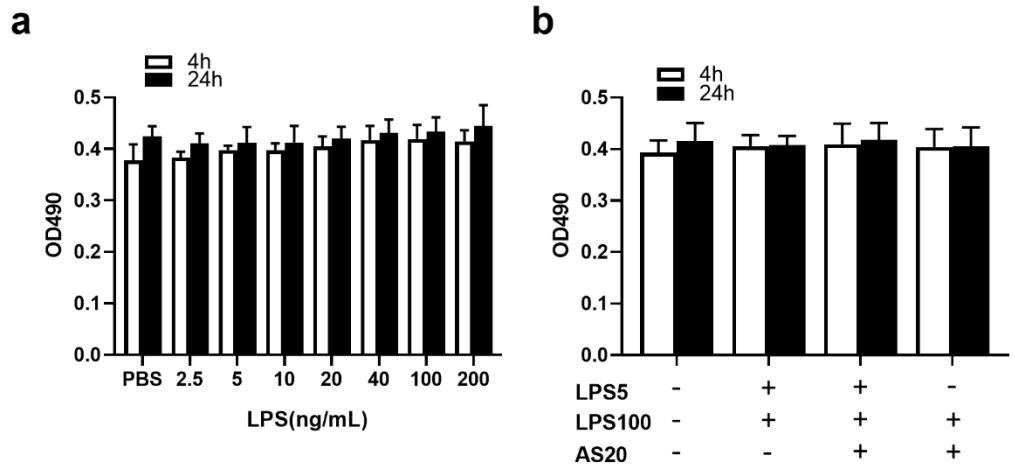

FIGURE S1. Cytotoxicity of LPS toward RAW264.7 cells (n = 5). (a) The OD490 value of LPS (2.5–200 ng/mL) treatment for 4 h or for 24 h in RAW264.7 cells. (b) The OD490 value of treatment groups (LPS5+LPS100, LPS5+LPS100+AS, and LPS100+AS) for 4 h or for 24 h in RAW264.7 cells. One-way ANOVA.

FIGURE S2

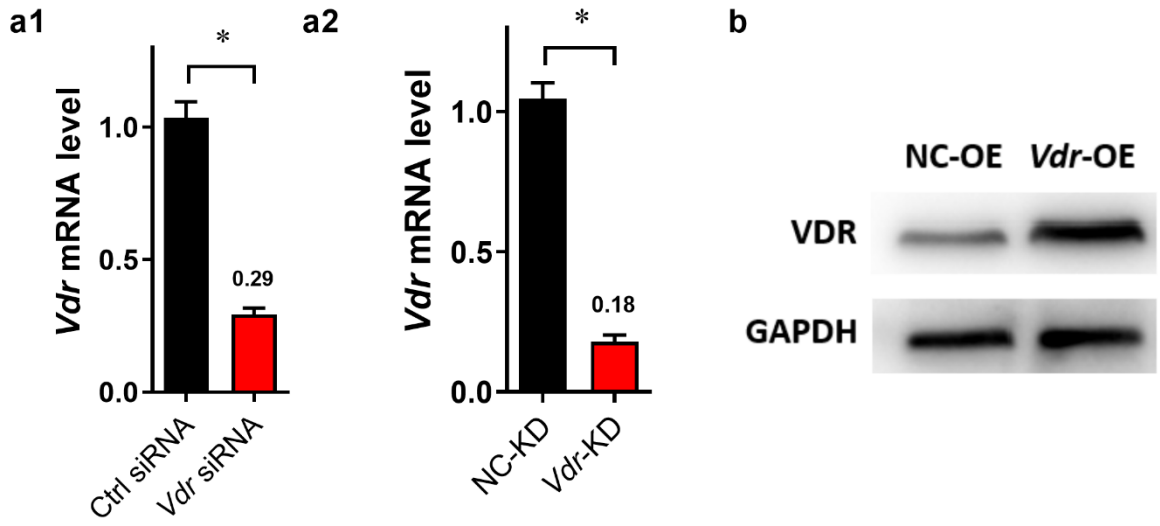

FIGURE S2. Efficiency of modified VDR. (a) *Vdr* mRNA level in the *Vdr*-KD and NC-KD RAW264.7 cells knocked down by a *Vdr* siRNA (a1) and lentivirus vector harboring a *Vdr* shRNA (a2). (b) Immunoblotting assays of VDR in *Vdr*-OE and NC-OE RAW264.7 cells. Student's *t* test; * $P < 0.05$.

FIGURE S3

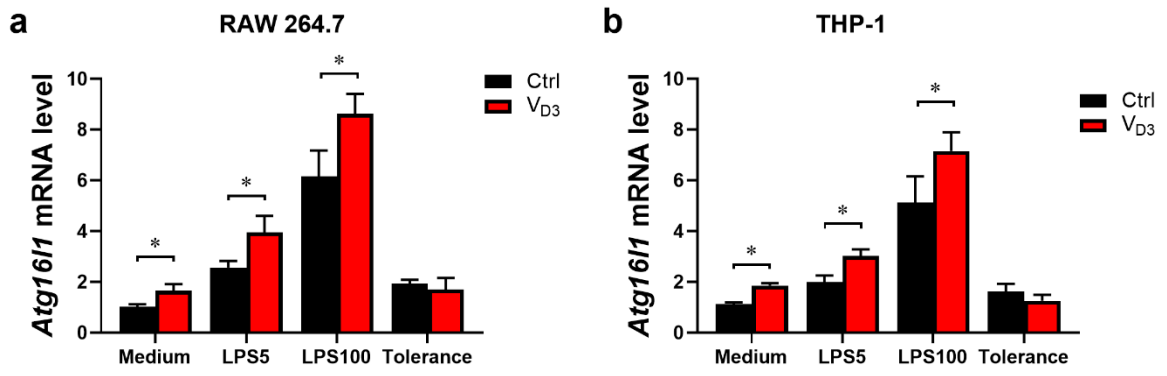

FIGURE S3. Effect of V_{D3} (100 nM) on the mRNA level of *Vdr* and *Atg16l1* in LPS treated cells and LPS-tolerant cells. (a-b) Effect of V_{D3} (100 nM) on the mRNA level of *Atg16l1* in LPS treated cells and LPS-tolerant cells in RAW 264.7 cells (a) and THP-1 cells (b). One-way ANOVA followed by Tukey's post hoc test; * $P < 0.05$.

FIGURE S4

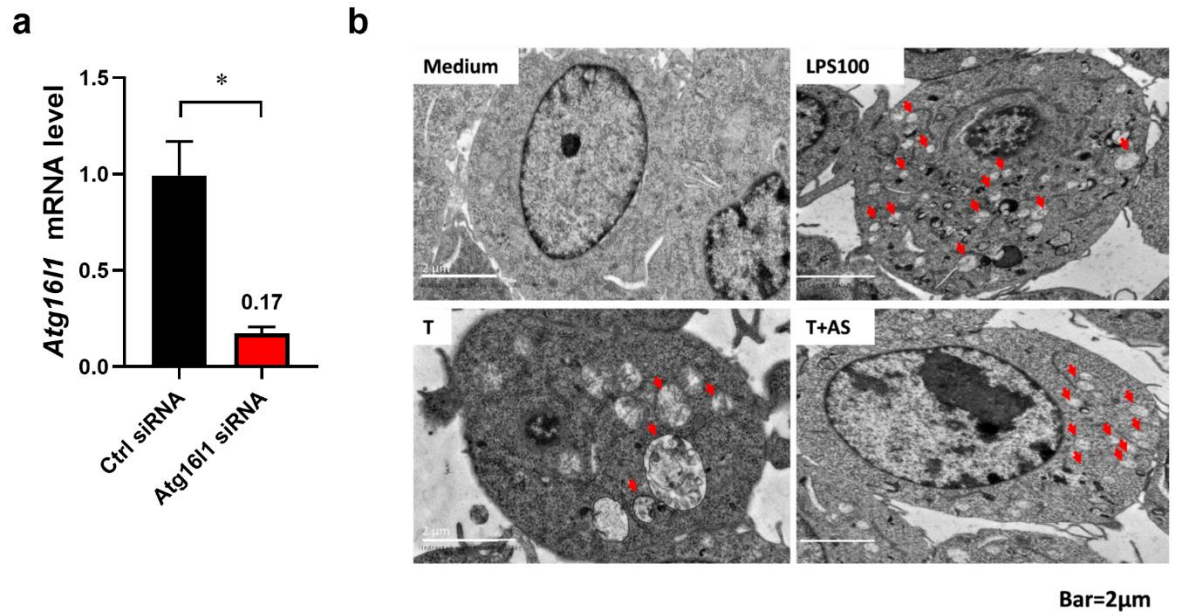

FIGURE S4. AS's effect is related to VDR-regulated autophagy. (a) *Vdr* mRNA level in the *Vdr*-KD and NC-KD RAW264.7 cells. (b) Effect of AS on autophagy vesicles in LPS-tolerant RAW264.7 cells under transmission electron microscopy. Student's *t* test; * $P < 0.05$.

FIGURE S5

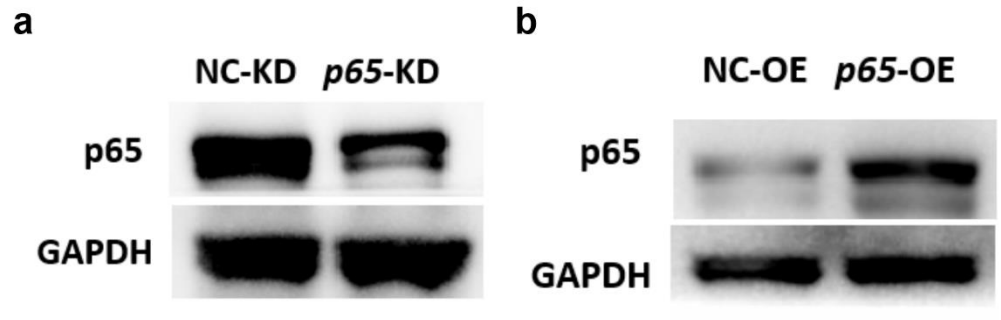

FIGURE S5. Efficiency of modified NF-κB P65. (a) Immunoblotting assays of NF-κB p65 (p65) in *p65*-KD and NC-KD RAW264.7 cells. (b) Immunoblotting assays of NF-κB p65 in *p65*-OE and NC-OE RAW264.7 cells.

FIGURE S6

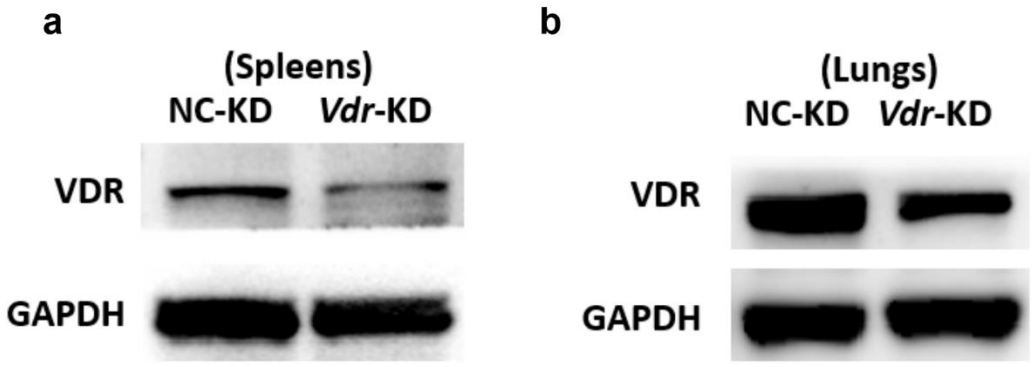

FIGURE S6. Efficiency of VDR knockdown in the lungs and spleen. (a) Immunoblotting assays of VDR in the spleen of NC-KD and *Vdr*-KD mice. (b) Immunoblotting assays of VDR in the lungs of NC-KD and *Vdr*-KD mice.

Supplementary Table 1. Antibodies for Immunofluorescence and Western blotting

Antibody	Company	Catalog	Dilution ratio	RRID
anti-NF-κB p65	Cell Signaling Technology	#9460	1:200/1:1000 (IF/WB)	AB_2797704
anti-VDR	Cell Signaling Technology	#12550S	1:200/1:1000 (IF/WB)	AB_2637002
anti-LC3B	Sigma-Aldrich	#L7543	1:200/1:5000 (IF/WB)	AB_796155
anti-ATG5	Sigma-Aldrich	#A0731	1:1000 (WB)	AB_796188
anti-ATG16L1	Cell Signaling Technology	#8089	1:1000 (WB)	AB_10950320
anti-GAPDH	Cell Signaling Technology	#2118	1:2000 (WB)	AB_561053
anti-rabbit IgG (AF 488)	Cell Signaling Technology	#4412	1:200 (IF)	AB_1904025
anti-mouse IgG (AF 488)	Cell Signaling Technology	#4408	1:200 (IF)	AB_10694704
anti-rabbit IgG (AF 555)	Cell Signaling Technology	#3969	1:200 (IF)	AB_10950227

Supplementary Table 2. Primer sequences for Real-time PCR

Gene	Species	Forward (5' -> 3')	Reverse (5' -> 3')
Atg16l1	mouse	AAGCCGAATCTGGACTGTGG	TATGCAGACTTTGCTGCGGA
Vdr	mouse	GAATGTGCCTCGGATCTGTGG	ATGCGGCAATCTCCATTGAAG
*Actb**	mouse	CGTAAAGACCTCTATGCCAACA	TAGGAGCCAGGGCAGTAATC
TNF-α	human	TCCTTCAGACACCCTCAACC	AGGCCCCAGTTTGAATTCTT
IL-6	human	GGCCCTTGCTTTCTCTTCG	ATAATAAAGTTTTGATTATGT
GAPDH	human	GAAGGTGAAGGTCGGAGTC	GAAGATGGTGATGGGATTTC

**Actb* encodes β-actin

Supplementary Table 3. Promoter specific sequences for *Atg16l1*

Gene	Species	Forward (5' -> 3')	Reverse (5' -> 3')
Atg16l1	mouse	GGTTCCGTTCTTGTTTCT	TCAAGTTGTCTCCAAGATTAT