

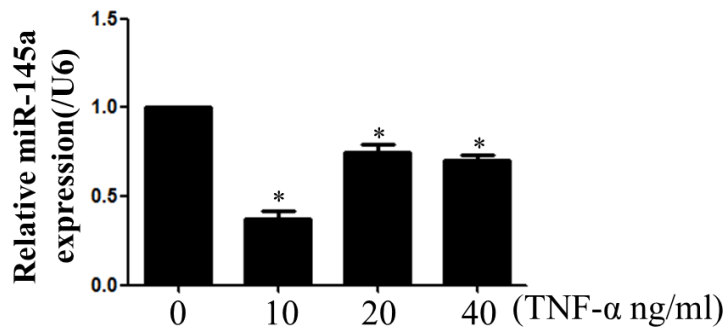
Figure I

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M327  
TAGTGAATAGCCATTGTATATGGTTCTGCGTTGAAACCCCTTCGTCTCTGTAAATCAGACAGTCCTTAACA  
ATCCTTAGCCCCAGTAGAGGCTCAGGATCCCGGCAACCCAACGATACGACACTGTCACGTTGCAACCAC  
GAAATGCCAGACATTAGGCCTGAGGTCACAGTCT  
M282-F: 5' TAGTGAATAGTTATTGTATATGGTTTGG 3'  
M282-R: 5' AAACATAACCTCAAACCTAATATCTAA 3' product length=174
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**Supplemental Figure I. The sequence of CpG island in miR-145 promoter.**

The CG in red represents the 7 CpG sites in the promoter and named +29, +43 +102, +113, +118, +129 and +140 respectively. The primers were used for BSP and ChIP assay in this article.

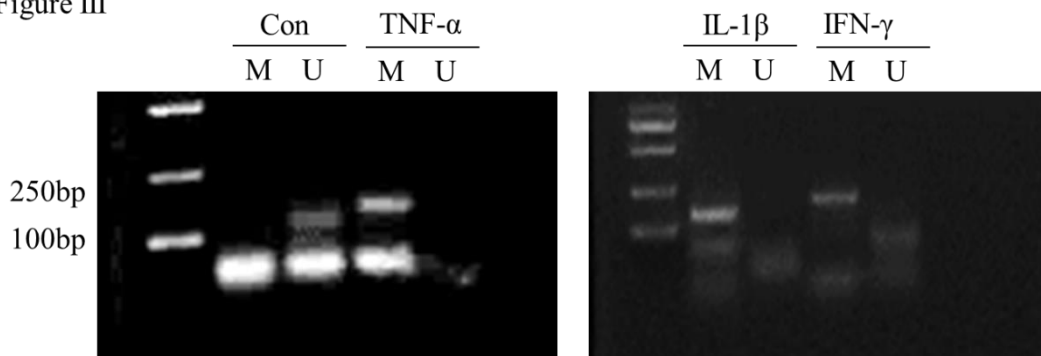
Figure II



**Supplemental Figure II. TNF-α (10ng/ml) significantly depressed miR-145 expression in VSMCs.**

Different concentrations of TNF-α (0, 10, 20, 40ng/ml) were used to stimulate VSMCs for 24h. The level of miR-145 was determined by quantitative PCR.

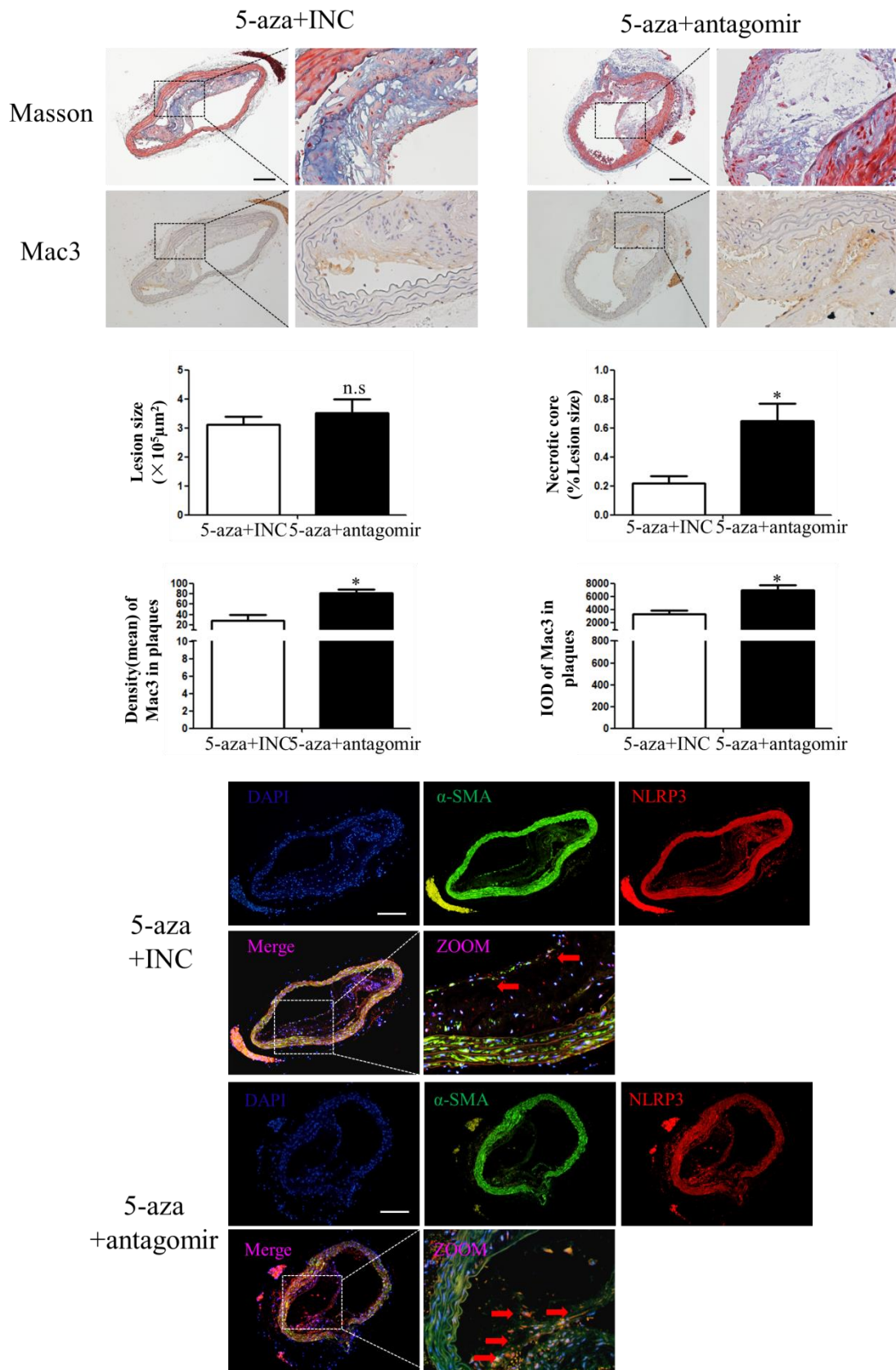
Figure III



**Supplemental Figure III. Methylation status of +129 site in miR-145 promoter.**

TNF-α, IL-1β and IFN-γ were used to treat VSMCs for 24h respectively. MSP was performed to observe the methylation status of +129 CpG site under different inflammation cytokines.

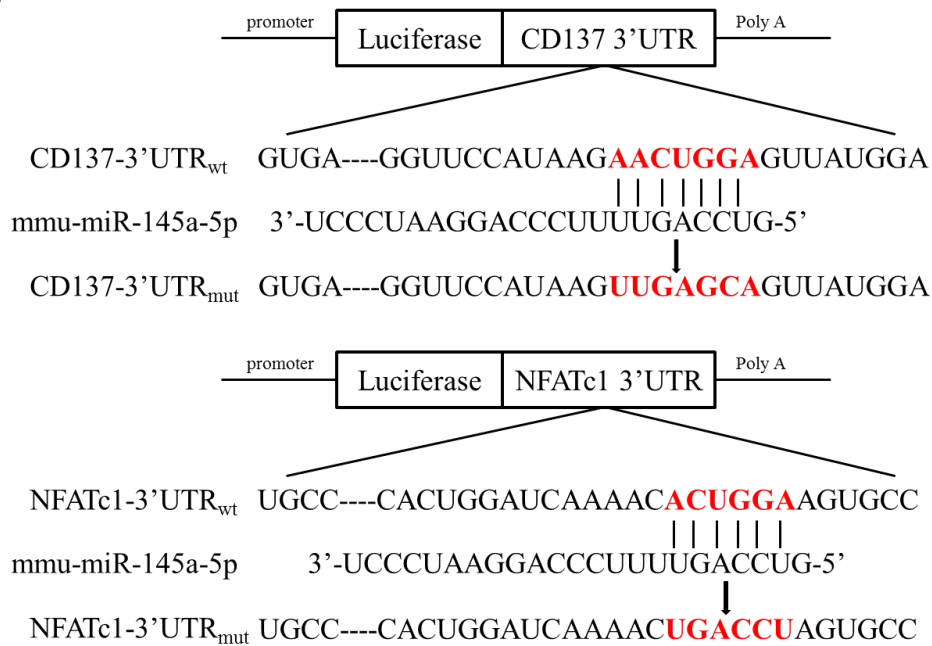
Figure IV



Supplemental Figure IV. miR-145 antagomir eliminated the benefits caused by 5-aza in ApoE<sup>-/-</sup> mice.

ApoE<sup>-/-</sup> mice fed with western diet for 16 weeks and then treated with 5-aza together with miR-145 antagomir (50mg/kg tail vein injection) every 3 days for another 6 weeks. The NLRP3 expression is significantly increased in VSMC in miR-145 antagomir+5-aza group compared with INC+5aza group, accompany by increased inflammation infiltration and necrotic core size in plaques, but the plaque size alters slightly. Values are mean±SEM from 6 animals in each group, \*P<0.05 vs control group.

Figure V



**Supplemental Figure V. The target seed regions of miR-145 in luciferase assay.**

The 3'UTR comprised of seed region was cloned into psicheck2 plasmid. The sequence in red was the normal seed region and mutated seed region respectively.

PCR Product	Application	Forward Primer	Reverse primer
CD137	RT-PCR	AGAGGGAGGACCAGCA TTTA	CAGGATGGTGGGGTCCTAGT
NFATc1	RT-PCR	CACACACCCCGCATGTC A	AGCTGGTACTTGGCATCCAC
Sh-NFATc1	Knock-d	CCGGGGTCAGTGTGACC GAAGATACCTCGAGGTA	AATTCAAAAAGGTCAGTGTG ACCGAAGATACCTCGAGGTA

	own	TCTTCGGTCACACTGAC CTTTTTG	TCTTCGGTCACACTGACC
Plenti-Tet2	Overexp ression	CCGGAATTCATGCCAAA TGGCAGTACAGTGG	TGCTCTAGATCATACAAATG TGTTGTAAGGCCCT
miR-145a	RT-PCR	GTCCAGTTTTCCCAGGA ATCCCT	AACGCTTCACGAATTTGCGT
U6	RT-PCR	CTCGCTTCGGCAGCACA	AACGCTTCACGAATTTGCGT
miR-145 promoter	ChIP,B SP	TAGTGAATAGCCATTGT ATATGGTTCTG	AAACTATAACCTCAAACCTA ATATCTAA

**Supplemental Table1. The related primers used in articles.**