

ORIGINAL RESEARCH ARTICLE

Whole-body *Metnrl* knockout, but not bone marrow-specific knockout, aggravates atherosclerosis

Supplementary File

Table S1. Basic characteristics of *Apoe*^{-/-}*Metnrl*^{-/-} and *Apoe*^{-/-}WT mice fed a high-fat diet for 10 weeks

Parameters	<i>Apoe</i> ^{-/-} WT (mean [95% CI])	<i>Apoe</i> ^{-/-} <i>Metnrl</i> ^{-/-} (mean [95% CI])
Body weight (g)	26.97 (24.23–29.71)	27.36 (25.09–29.64)
Serum <i>Metnrl</i> (pg/mL)	1,906.76 (296.84–3,516.68)	0 ^a
Serum lipid levels (mmol/L)		
HDL-C	7.48 (6.62–8.33)	7.53 (6.37–8.69)
LDL-C	6.23 (5.64–6.83)	6.35 (5.52–7.17)
TC	35.02 (31.34–38.70)	35.70 (30.64–40.76)
TG	2.59 (1.94–3.24)	2.60 (1.83–3.38)

Notes: Table S1 provides extended data corresponding to Figure 2. ^aIn all serum samples from *Apoe*^{-/-}*Metnrl*^{-/-} mice, *Metnrl* protein was not detected. Abbreviations: CI: Confidence interval; HDL-C: High-density lipoprotein cholesterol; LDL-C: Low-density lipoprotein cholesterol; *Metnrl*: Meteorin-like protein; TC: Total cholesterol; TG: Triglyceride.

Table S2. Atherosclerosis in the aortas of mice fed an HFD

Variable	Atherosclerosis (% of <i>en face</i> aorta, mean [95%CI] ^a)
HFD for 10 weeks	
<i>Apoe</i> ^{-/-} WT	3.76 (2.25–5.28)
<i>Apoe</i> ^{-/-} <i>Metnrl</i> ^{-/-}	6.13 (3.04–9.23)
HFD for 16 weeks	
<i>Apoe</i> ^{-/-} WT	8.35 (6.76–9.93)
<i>Apoe</i> ^{-/-} <i>Metnrl</i> ^{-/-}	14.14 (3.08–25.21)

Notes: Table S2 provides extended data corresponding to Figure 3.

^aAtherosclerosis in the aortas of mice was assessed by Oil Red O staining of *en face* aorta.

Abbreviations: CI: Confidence interval; HFD: High-fat diet; WT: Wild type.

Table S3. Quantitative results of aortic root atherosclerosis in mice fed HFD for 10 weeks

Staining method	<i>Apoe</i> ^{-/-} WT (mean [95% CI])	<i>Apoe</i> ^{-/-} <i>Metnrl</i> ^{-/-} (mean [95% CI])
Oil Red O staining (plaque area, %)	38.48 (32.30–44.66)	44.55 (39.55–49.54)
IHC staining for ICAM-1 (relative average optical density)	1.00 (0.86–1.14)	1.53 (0.88–2.18)

Note: Table S3 provides extended data corresponding to Figure 4.

Abbreviations: CI: Confidence interval; HFD: High-fat diet; IHC:

Immunohistochemistry; ICAM-1: Intercellular adhesion molecule-1;

WT: Wild type.

Table S4. Characteristics of chimeric *Apoe*^{-/-} mice fed an HFD for 16 weeks

Parameters	<i>Apoe</i> ^{-/-} WT (mean [95% CI])	<i>Apoe</i> ^{-/-} <i>Metnrl</i> ^{-/-} (mean [95% CI])
Body weight (g)	32.82 (30.02–35.62)	34.24 (31.15–37.33)
Bone marrow		
Relative <i>Metnrl</i> mRNA level (%)	1.00 (0.64–1.36)	0.07 (0.05–0.09)
Relative <i>Metnrl</i> protein level (<i>Metnrl</i> /Actin, %)	6.20 (-8.49–20.90)	0.70 (-0.79–2.19)
Serum <i>Metnrl</i> (pg/mL)	1,839.69 (606.81–3,072.57)	1,716.67 (1,246.53–2,186.81)
Atherosclerosis (% of <i>en face</i> aorta)	6.14 (4.52–7.77)	6.66 (5.61–7.71)

Note: Table S4 provides extended data corresponding to Figure 5.

Abbreviations: CI: Confidence interval; HFD: High-fat diet; *Metnrl*: Meteorin-like protein; WT: Wild type.

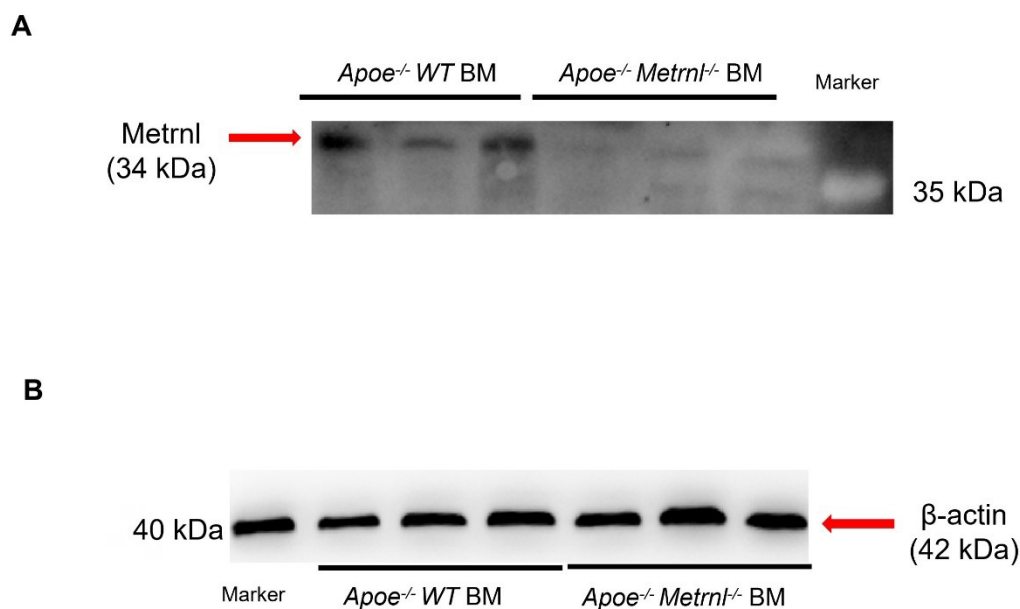


Figure S1. Raw images for Western blotting for *Metnrl* in Figure 5E. (A) Western blotting for *Metnrl* (34 kDa). (B) Western blotting for β -actin (42 kDa).