



Highlights:

1. Omentin-1 infusion significantly improved the stability of already-established AS plaque in ApoE-KO mice and Ldlr-KO mice.
2. Omentin-1 attenuated apoptosis, lipid accumulation and inflammatory response induced by ox-LDL in macrophage.
3. Omentin-1 directly bound to integrin receptor $\alpha\beta3$ and $\alpha v\beta5$ on cell membrane. Either the use of cilengitide (inhibitor of $\alpha\beta3$ and $\alpha v\beta5$) or knocking down the expression of integrin subunit αv abrogated the bioeffects induced by omentin-1.