

Figure S1. LncRNA and miRNA microarrays data in Control and MEM-incubated ECs. “Control” group means normal ECs and “MEM” group means MEM-incubated ECs. **(a)** LncRNA gene expression profiles as obtained from samples in three groups as indicated. **(b)** miRNA gene expression profiles as obtained from samples in three groups as indicated. **(c and d)** qRT-PCR was performed to validate the selected molecules. Data represent mean \pm SD (n=3, each). ** $P < 0.01$ vs Control group/ shNC group.

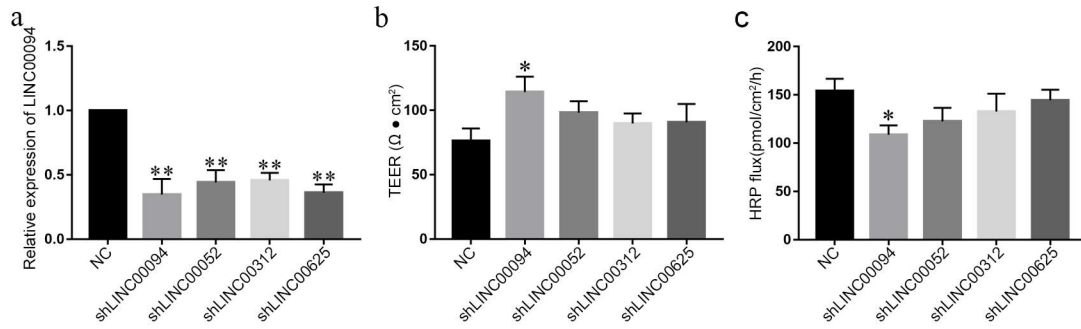


Figure S2. Effects of LINC00094, LINC00052, LINC00312 and LINC00625 knockdown on BBB permeability in AD microenvironment. **(a)** Relative expression of LINC00094, LINC00052, LINC00312 and LINC00625 in cells transfected shLINC00094, shLINC00052, shLINC00312 and shLINC00625. Data represent mean \pm s.d. (n=3, each). **(b)** TEER values were detected to confirm BBB integrity. **(c)** HRP flux test was performed to confirm BBB permeability. Data represent mean \pm SD (n=3, each). * $P < 0.05$, ** $P < 0.01$ vs NC group.

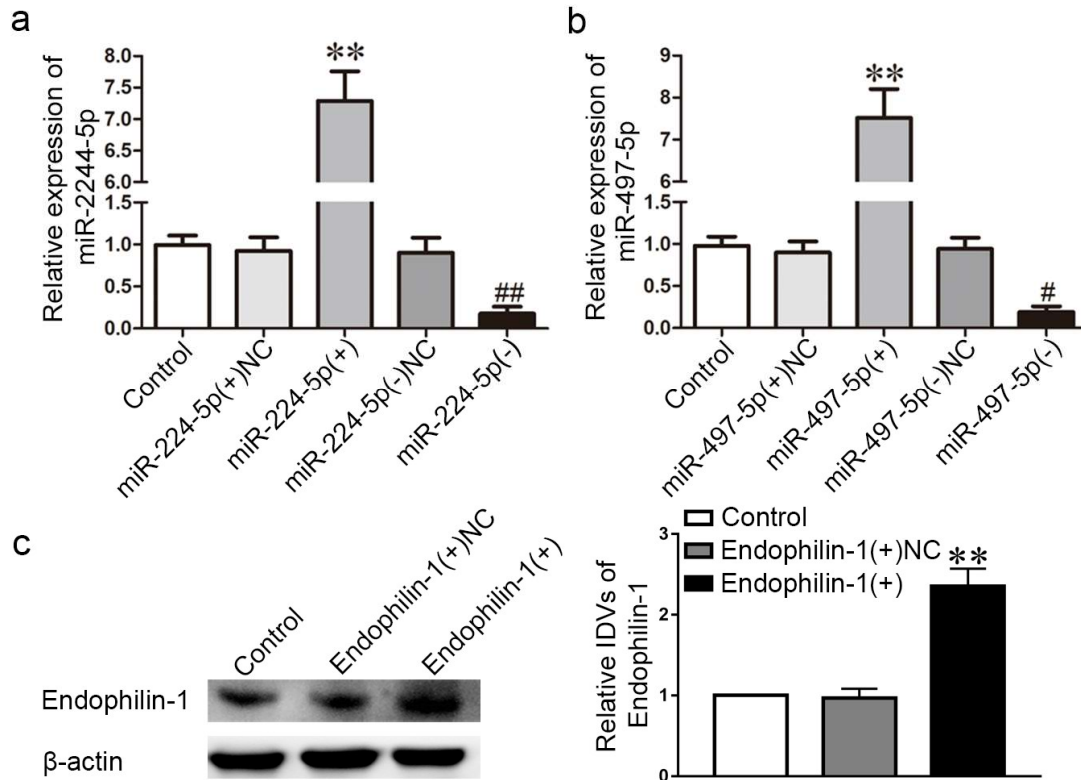


Figure S3. Transfection efficiency of LINC00094, miR-224-5p/ miR-497-5p and Endophilin-1. **(a)** Relative expression of miR-224-5p in cells transfected agomir-224-5p or antagomir-224-5p. Data represent mean \pm s.d. (n=3, each). ** $P < 0.01$ vs. miR-224-5p (+) NC group, ## $P < 0.01$ vs. miR-224-5p (-) NC group. **(b)** Relative expression of miR-497-5p in cells transfected agomir-497-5p or antagomir-497-5p. Data represent mean \pm s.d. (n=3, each). ** $P < 0.01$ vs. miR-497-5p (+) NC group, # $P < 0.05$ vs. miR-497-5p (-) NC group. **(c)** Relative expression of Endophilin-1 in cells transfected pIRES2-EGFP-Endophilin-1-CDS. Data represent mean \pm s.d. (n=3, each). ** $P < 0.01$ vs. Endophilin-1 (+) NC group.