Supplementary informations

Supplementary Figures



Fig. S1 Chemical structures of ABO, 6-amino-2,3-dihydro-3-hydroxymethyl-1,4-benzoxazine.



Fig.S2 Western blot analysis and quantification of ANXA7 protein level. Overexpression (pCVM-ANXA7) and knockdown (siANXA7) of ANXA7 were performed. Protein levels were normalized to that of β -actin. Data are mean \pm SEM. * p < 0.05, ** p < 0.01, # p < 0.05, ## p < 0.01, n = 3.



Fig.S3 Double immunohistochemical staining showed that ANXA7 (red) and PC-PLC (green) exhibited agglomeration and colocalization after different treatment in HUVECs. Overexpression (pCMV-ANXA7) and knockdown (siANXA7) of ANXA7 were performed. Overlays of the red and green signal with a yellow colour indicated co-localization. Bar represents 16 µm.



Fig.S4 Dual immunofluorescence for CD31 and LC3 of en face aortic arch. (A) Confocal images of en face aortic arch labeled with DAPI (blue), rat-anti-CD31 (red) and rabbit-anti-LC3 (green). (B) The bar chart separately showed quantification of

LC3 dots per cell in the endothelium. Data are mean \pm SEM. * p < 0.05 vs. baseline, # p<0.05 , ## p< 0.01 vs. control, n = 6.



Fig.S5 Experimental design of 4 experimental protocols. ABO low-dosage: ABO-LD; ABO high-dosage: ABO-HD.



Fig.S6 The normal rabbit IgG control demonstrated the specificity of the antibody against p62, LC3, ANXA7 and PC-PLC. Bar = $60 \mu m$.

Table S1. Measurement of organ coefficients of mice after treatment with ABO.

Groups	Heart (%)	Liver (%)	Spleen (%)	Lung (%)	Kidney (%)	Brain (%)
Control	0.41±0.03	4.85±0.41	0.50 ± 0.03	0.59 ± 0.01	1.21 ± 0.12	0.83 ± 0.04
ABO-LD	0.40 ± 0.01	4.90±0.40	0.53 ± 0.04	0.57 ± 0.02	1. $14 \pm 0. 11$	0.86 ± 0.05
ABO-HD	0.41 ± 0.05	4.84 ± 0.38	0.51 ± 0.02	0.61±0.08	1. 21 \pm 0. 14	0.84±0.09