Supplemental Figures



Supplemental Figure 1. Renal and serum Klotho was not changed by high-salt diet (HS) in young-WT and aged-WT. (A) Renal and aortic expression of Klotho in young-WT with normal-salt (NS) diet. N = 5, each. *p < 0.05 (vs. kidney). (B) Renal expression of Klotho in young-WT and aged-WT fed NS or HS. N = 9, each. *p < 0.05 (vs. young-WT-NS or aged-WT-NS). (C) Serum expression of Klotho in young-WT and aged-WT fed NS or HS. N = 8, each. *p < 0.05 (vs. young-WT-NS or aged-WT-NS). Data are means \pm SEM. Unpaired t-tests were performed on comparisons between two groups. For multiple comparisons, statistical analysis was performed by the Tukey–Kramer post hoc test.



Supplemental Figure 2. Increased active RhoA expressions in aortas of aged-WT mice and young Klotho-KO mice with the high-salt diet (HS). RhoA-GTP expressions in aortas of young-WT and aged-WT fed normal-salt (NS) or HS. N = 4, each. *p < 0.05 (vs. young-WT-NS or aged-WT-NS). Data are means \pm SEM. Statistical analysis was performed by the Tukey–Kramer post hoc test.



Supplemental Figure 3. Neither Fasudil nor Box5 affected mean BP (MBP) measured by telemetry method in salt-loaded young-WT mice. Effects of Fasudil and Box5 treatment on circadian and average MBP in young-WT mice with high-salt (HS). N = 4 for HS, n = 3 for HS+Fasudil and HS+Box5, each. *p < 0.05 (vs. HS). Data are means \pm SEM. Statistical analysis was performed by the Tukey–Kramer post hoc test. Fasudil: Fas.



Supplemental Figures 4. The aortic expressions of Dvl paralleled those of active β -catenin expressions whereas those of Daam1 and ROR2 were consistent with the expressions of p-MYPT1 in the iliac arteries in both aged-WT and heterozygous Klotho knockout (KL-KO) mice. (A) Dvl expressions in the aortas of aged-WT (left) and KL-KO mice (right) fed NS or HS. N = 6, each. *p < 0.05 vs. young-WT-NS, aged-WT-NS, or KL-KO-NS. (B) Daam1 and ROR2 expressions in the aortas of aged-WT (left) and KL-KO mice (right) fed NS or HS. N = 6, each. *p < 0.05 vs. young-WT-NS, aged-WT-NS, or KL-KO-NS. (B) Daam1 and ROR2 expressions in the aortas of aged-WT (left) and KL-KO mice (right) fed NS or HS. N = 6, each. *p < 0.05 vs. young-WT-NS or KL-KO-NS. Data are means ± SEM. Statistical analysis was performed by the Tukey–Kramer post hoc test. Dvl: dishevelled; Daam1: dishevelled-associated activator of morphogenesis 1; Ror2: receptor tyrosine kinase-like orphan receptor 2.



Supplemental Figure 5. Serum levels of FGF-23 did not change by high-salt (HS) diet in young-WT, heterozygous Klotho-KO (KL-KO) and aged-WT mice. Serum levels of FGF-23 did not show the significant difference among young-WT, KL-KO and aged-WT mice with normal-salt diet (NS). Young-WT fed NS or HS, n = 5, each. KL-KO fed NS or HS, n = 5, each. Aged-WT fed NS or HS, n = 6, each. Data are means \pm SEM. Statistical analysis was performed by the Tukey–Kramer post hoc test.



Supplemental Figure 6. The protein expressions of Wnt11 in the aortas increased in highsalt (HS)-fed aged-WT and heterozygous Klotho-KO (KL-KO) mice though those of Wnt 1 and Wnt4 did not change. The aortic protein levels of Wnt1, Wnt4, and Wnt11 in aged-WT (left) and KL-KO mice (right) fed normal-salt (NS) or HS in comparison with young-WT. N = 6, each. *p < 0.05 vs. young-WT-NS, aged-WT-NS or KL-KO-NS. Data are means \pm SEM. Statistical analysis was performed by the Tukey–Kramer post hoc test.



Supplemental Figures 7. The expressions of Wnt5a were effectively suppressed by siWnt5a both in mRNA and protein levels in human vascular smooth muscle cells (hVSMCs). Effects of the negative control siRNA (siNC) and siWnt5a on mRNA (left, n = 7, each) and protein (right, n = 6, each) levels of Wnt5a in hVSMCs. *p < 0.05 vs. siNC. Data are means ± SEM. Unpaired t-tests were performed on comparisons between two groups.