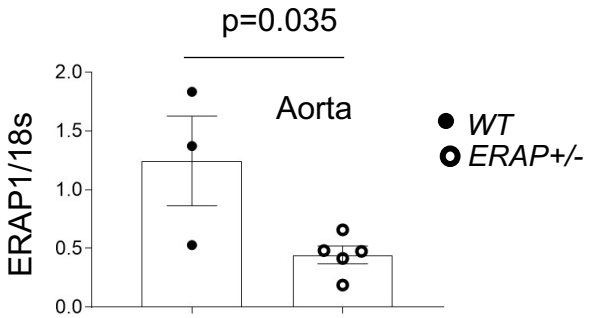
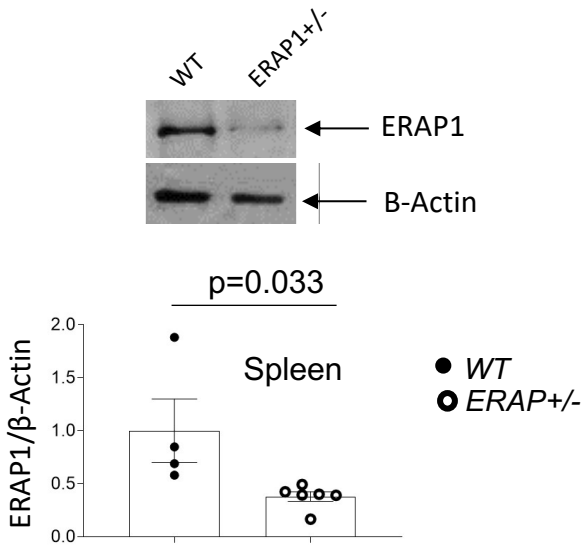
	Dietary Salt	WT		ERAP1+/-	
Food (g)	Restricted	3.20	±0.24	3.13	±0.36
	Liberal	3.34	±0.26	3.33	±0.14
Water (ml)	Restricted	3.60	±0.52	3.46	±0.29
	Liberal	7.27	±0.43	7.42	±0.23
Urine (ml)	Restricted	1.30	±0.10	1.24	±0.10
	Liberal	4.17	±0.44	4.37	±0.24
24h Urinary Na+	Restricted	0.03	±0.02	0.02	±0.03
(mmol/d)	Liberal	0.68	±0.05	0.56	±0.04
24h Urinary K+	Restricted	0.34	±0.03	0.35	±0.06
(mmol/d)	Liberal	0.29	±0.02	0.27	±0.02
Heart Rate (BPM)	Restricted	759.7	±17.7	716.2	±15.4
	Liberal	731.9	±13.5	723.8	± 8.1
Activity counts	Restricted	7.5	±2.1	6.6	±1.0
	Liberal	10.7	±3.7	9.6	±2.0
Serum ALDO (ng/dL)	Restricted	35.4	±3.5	40.6	±3.3

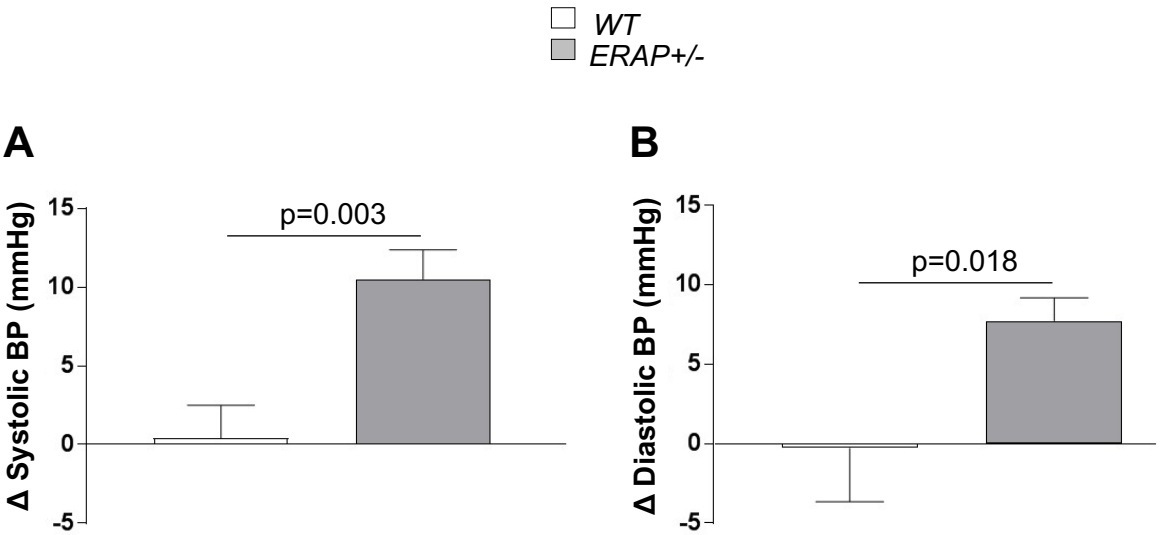
Supplementary Table 1. **Characteristics of Endoplasmic reticulum amino peptidase-1-deficient (ERAP1+/-) and Wild-type (WT) littermate mice on liberal and restricted salt diets.** Mice were studied between 18-21 weeks of age. Data are means ±SEM. Aldosterone (ALDO), Potassium (K+), Sodium (Na+), Day (d).



Supplemental Figure 1. Endoplasmic reticulum amino peptidase-1 (ERAP1) mRNA levels are reduced in aortas from ERAP1 deficient (ERAP1+/-) mice compared to wild-type (WT) littermate control mice. ERAP1 mRNA levels were determined by RT-PCR from aortas as described in Methods. Bars display mean ± SEM; *p* value was calculated using two-tailed student *t* test.



Supplemental Figure 2. Endoplasmic reticulum amino peptidase-1 (ERAP1) protein levels are reduced in spleens from ERAP1 deficient (ERAP1+/-) mice compared to wild-type (WT) littermate control mice. Western blot and representative optical densitometry of spleen, normalized to β-actin. Bars display mean ± SEM; *p* value was calculated using two-tailed student *t* test.



Supplementary Figure 3. Salt sensitivity of blood pressure (BP) in unrestrained WT and ERAP1+/- mice measured using telemetry device implanted in the aortic arch. **A)** Salt Sensitivity of BP is estimated from change in systolic BP (Δsystolic BP = SBP on 1.6% Na^+ minus SBP on 0.03% Na^+) **B)** change in diastolic BP (Δdiastolic BP = DBP on 1.6% Na^+ minus SBP on 0.03% Na^+)(replicates: *WT* n=7, *ERAP1+/-* n=13, **p*<0.02, *p* value shows two-tailed student *t* test.)

Tissue	Normalized Effect Size	p - Value
Tibial Artery	-0.32	8.0e-12
Aorta	-0.40	8.9e-11
Adrenal gland	-0.47	1.2e-12
Coronary Artery	-0.42	0.0000039

Supplementary Table 2. Effect size per *ERAP1* rs30187 allele for reducing ERAP1 mRNA expression using GTEx Analysis V7 and dbGaP Accession phs000424.v7.p2, February 28, 2019.