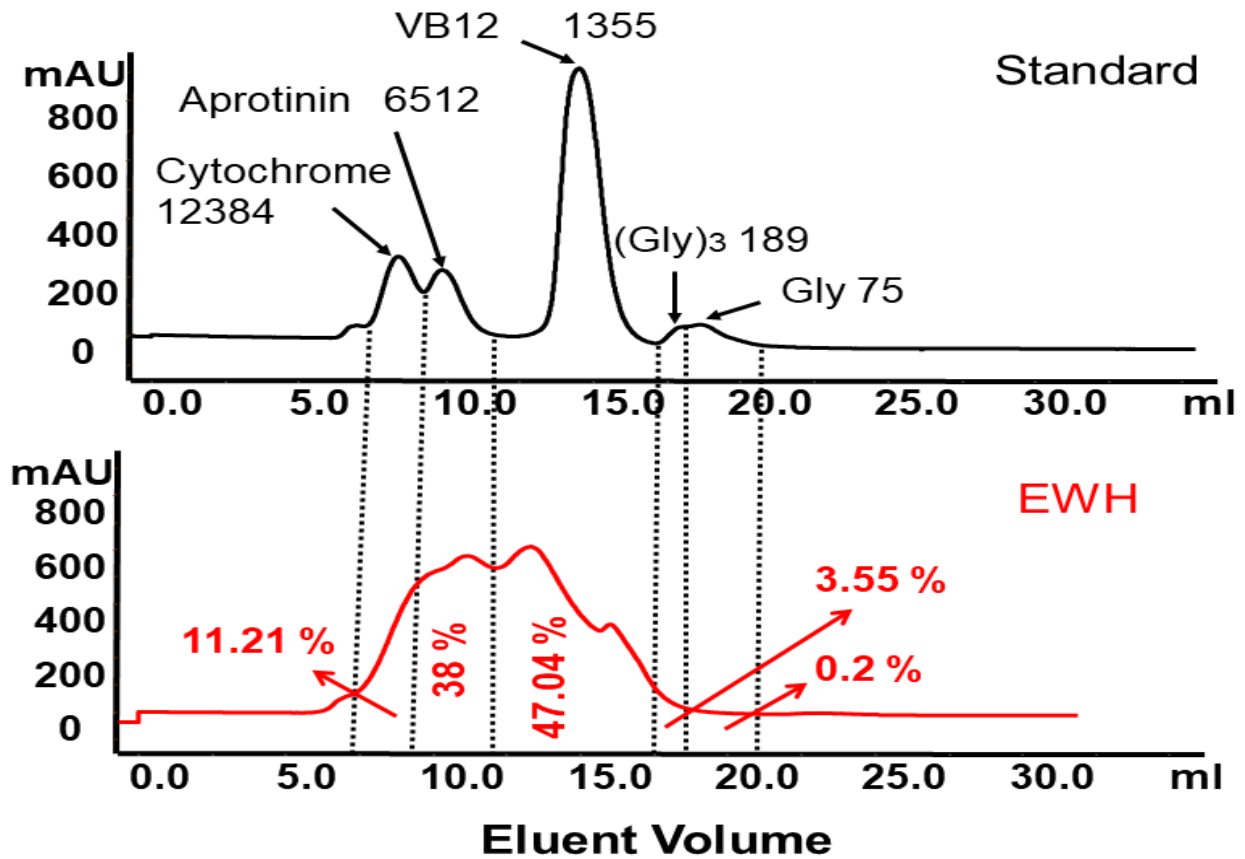
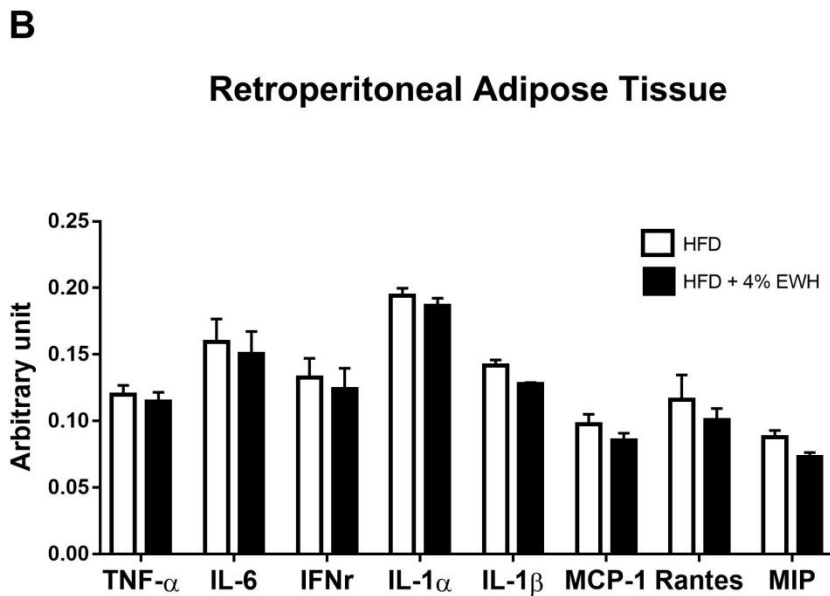
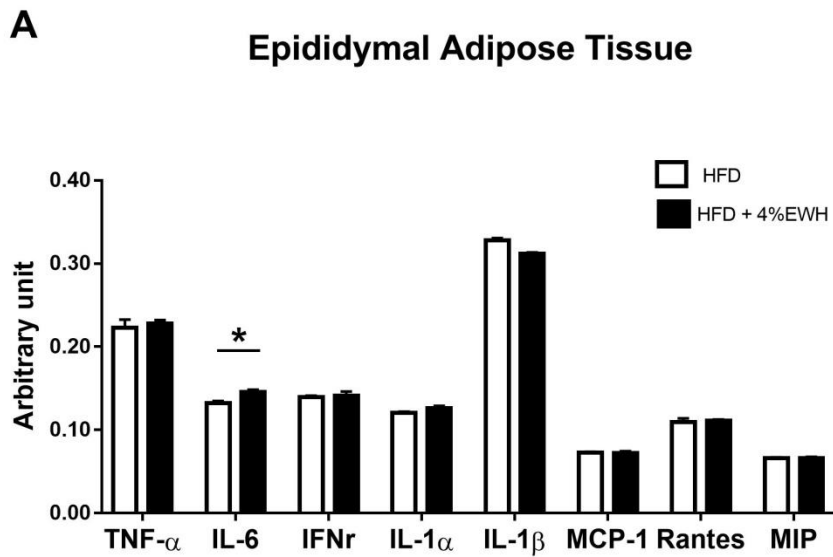


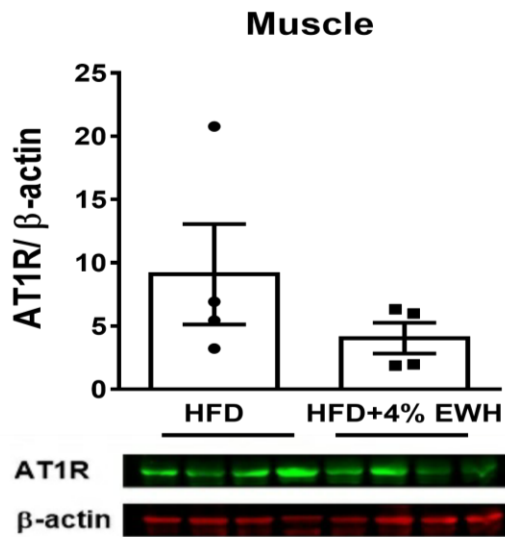
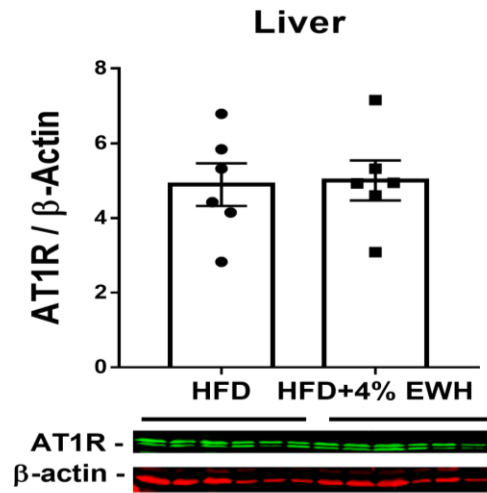
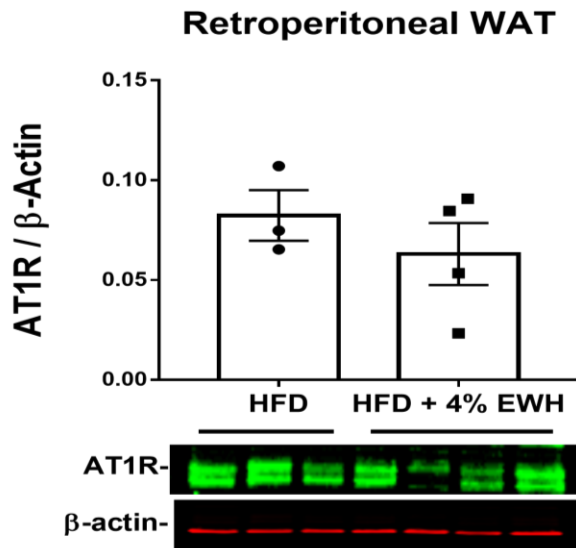
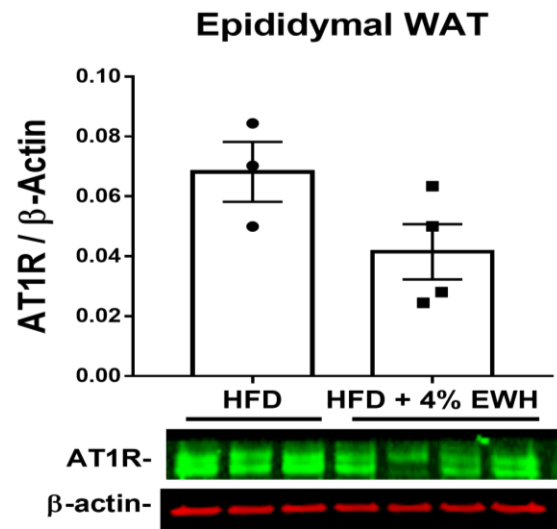
## Supplementary material



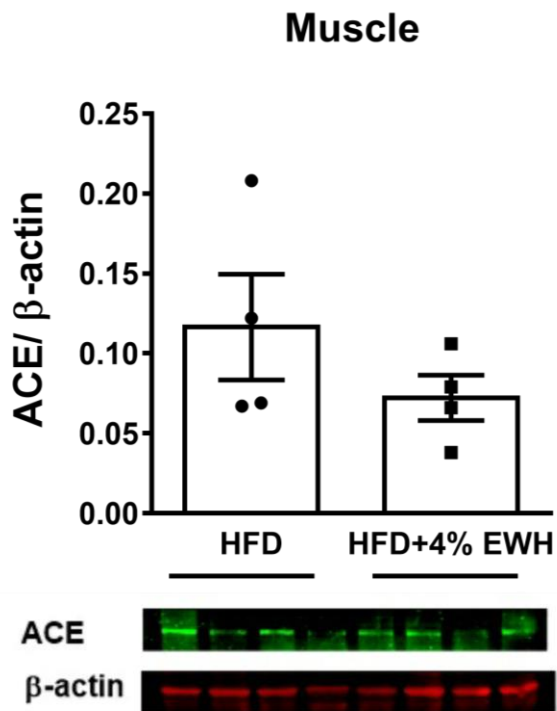
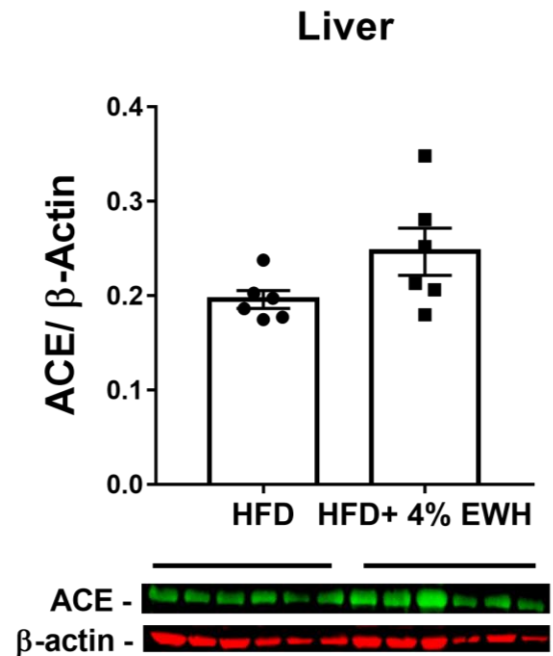
**S 1- Size profile of EWH peptides.** The majority of EWH-derived peptides (more than 85%) are in the range of 6.51 to 1.36 KDa. A small fraction of peptides (11.21%) with higher molecular weight between 12.38 to 6.51 KDa also present in the EWH. The molecular weight distribution of EWH peptides was determined using size-exclusion chromatography on an AKTA liquid chromatography system (GE Healthcare, Uppsala, Sweden) coupled with a Superdex Peptide 10/300GL column at room temperature. EWH was dissolved in 30% aqueous acetonitrile (ACN) containing 0.1% trifluoroacetic acid (TFA) and filtered through 0.22  $\mu\text{m}$  filters. 100  $\mu\text{L}$  of the sample was injected into the column and separated using an isocratic elution at a flow rate of 0.6 mL/min with 30% ACN containing 0.1% TFA. The absorbance of the eluent was monitored at 215 nm. Molecular weight markers (cytochrome c, 12384 Da; aprotinin, 6512 Da; vitamin B12, 1355 Da; (glycine)<sub>3</sub>, 189 Da; and glycine, 75 Da) were run under identical conditions to obtain the standard curve.



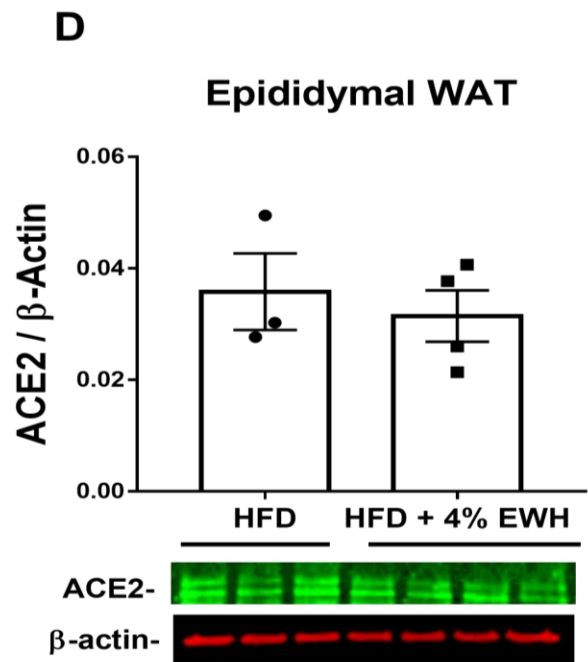
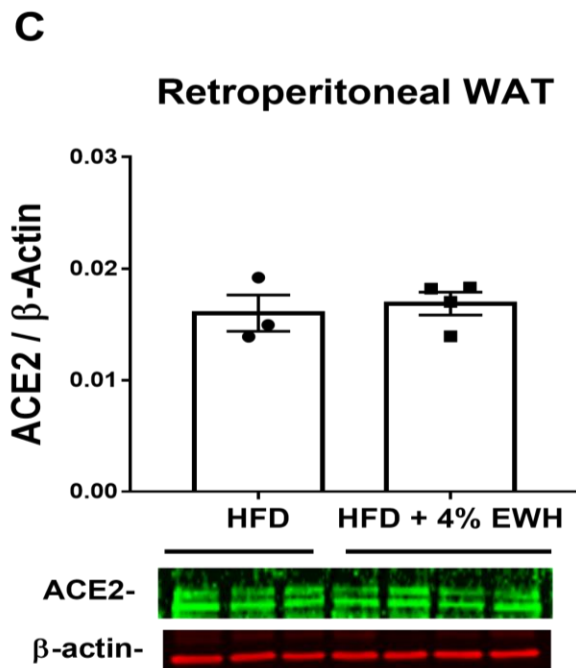
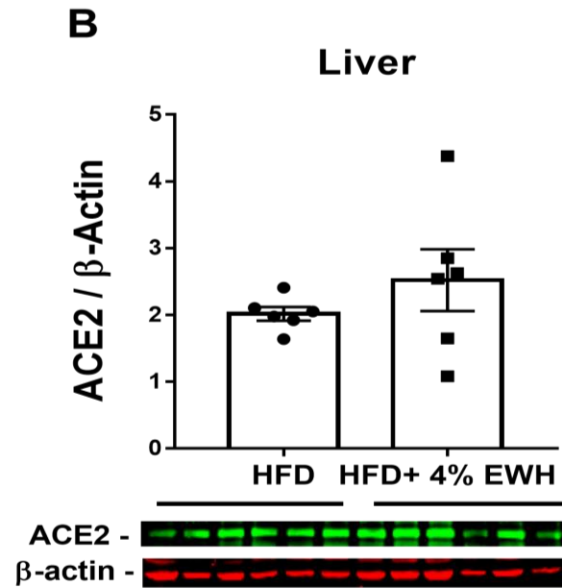
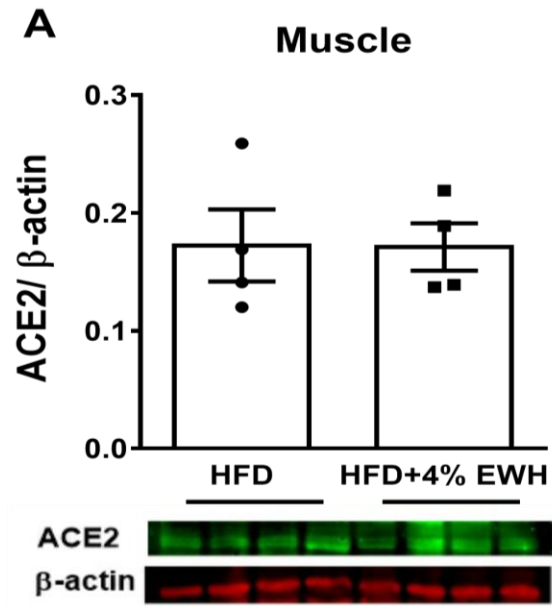
**S 2- Epididymal and retroperitoneal adipose tissue inflammatory markers in (A) Epididymal adipose tissue n=3 rats and (B) Retroperitoneal adipose n=6 rats.** Data are shown as the Mean  $\pm$  SEM and were analyzed by two-tailed t-test. \* shows significant difference at  $p < 0.05$ . TNF- $\alpha$ , Tumor necrosis factor; IL-6, Interleukin-6; IFNr, Interferon production regulator; IL-1 $\alpha$ , Interleukin-1 alpha; IL-1 $\beta$ , Interleukin- 1 beta; MCP-1, Monocyte chemoattractant protein-1; Rantes, regulated on activation, normal T cell expressed and secreted; MIP, Macrophage inflammatory protein.

**A****B****C****D**

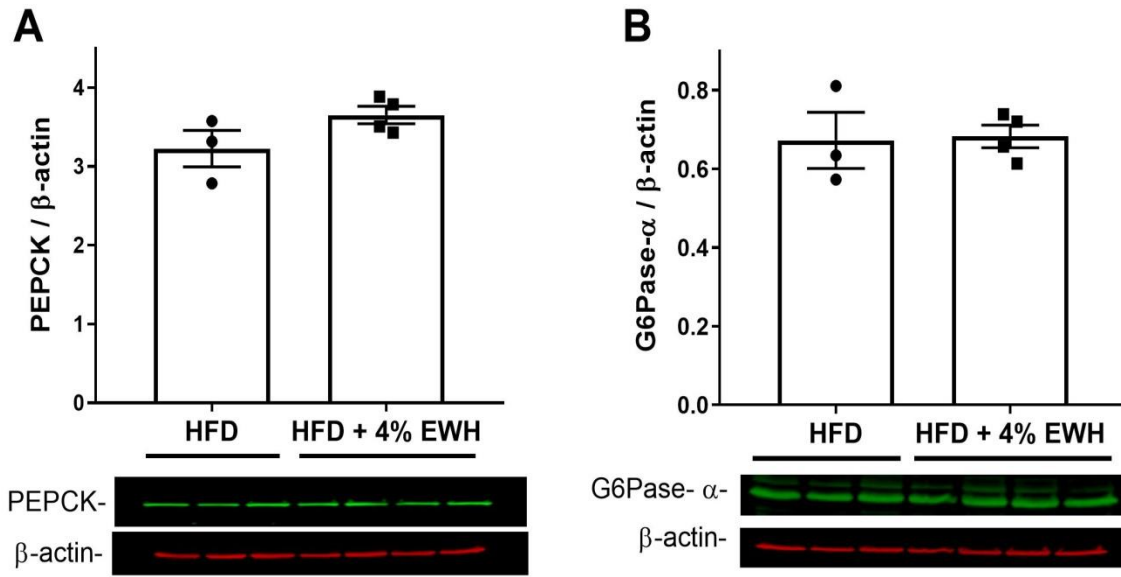
**S 3- AT1R protein abundance in skeletal muscle (A), liver (B), and adipose tissue (C and D).** The protein band of AT1R was normalized to  $\beta$ -actin as the loading control in HFD and HFD + 4% EWH treated groups. Data are shown as the Mean  $\pm$  SEM for n= 4 rats and were analyzed by two-tailed t-test. AT1R, Angiotensin II type 1 receptor; WAT, white adipose tissue.

**A****B**

**S 4- ACE protein abundance in skeletal muscle (A) and liver (B).** The protein band of ACE was normalized to  $\beta$ -actin as the loading control in HFD and HFD+4%EWH treated groups. Data are shown as the Mean  $\pm$  SEM for n= 4-6 rats and were analyzed by two-tailed t-test. ACE, angiotensin converting enzyme; WAT, white adipose tissue.



**S 5- ACE2 protein abundance in skeletal muscle (A), liver (B), and adipose tissue (C and D).** The protein band of ACE2 was normalized to  $\beta$ -actin as the loading control in HFD and HFD+4%EWH treated groups. Data are shown as the Mean  $\pm$  SEM for  $n= 3-6$  rats and were analyzed by two-tailed t-test. ACE2, angiotensin converting enzyme 2; WAT, white adipose tissue.



**S 6- Liver PEPCK and G6Pase- $\alpha$  abundance.** PEPCK and G6Pase protein bands were normalized to  $\beta$ -actin as the loading control. (A) PEPCK and (B) G6Pase in HFD and HFD+4%EWH treated groups. Data are shown as the Mean  $\pm$  SEM for n= 3-4 rats and were analyzed by two-tailed t-test. PEPCK, Phosphoenolpyruvate carboxykinase; G6Pase- $\alpha$ , Glucose 6 phosphatase- $\alpha$