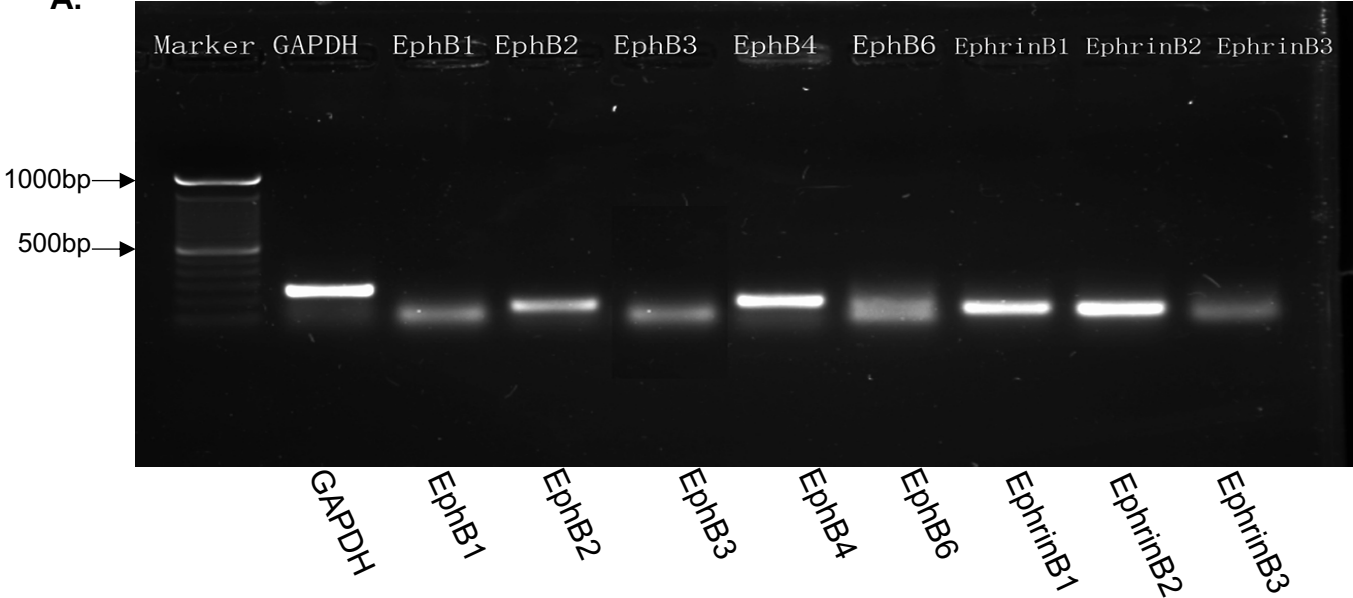
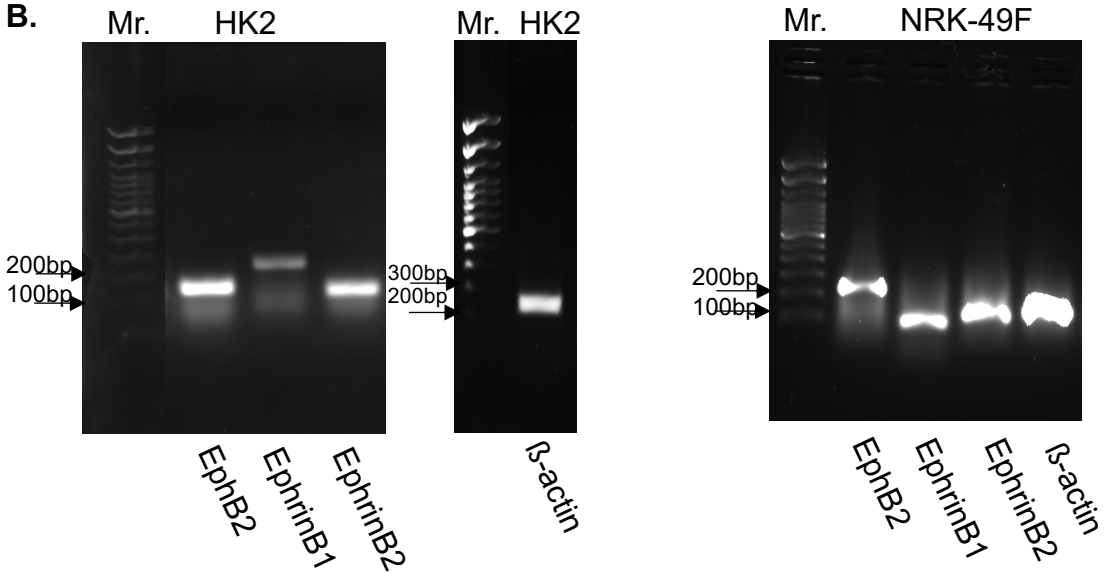


**Figure S1**

**A.**



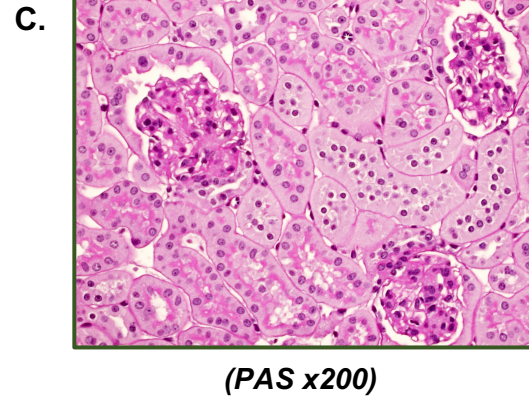
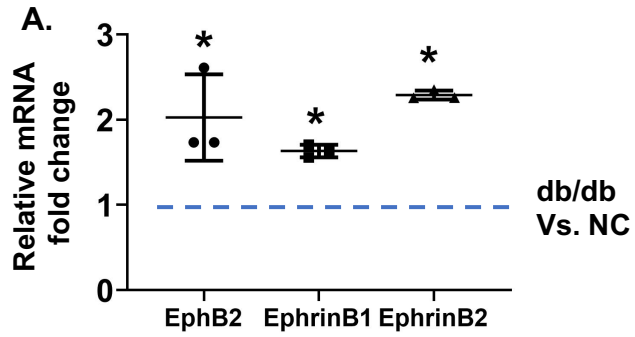
**B.**



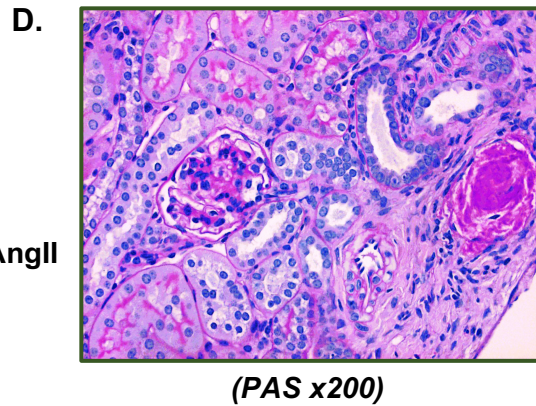
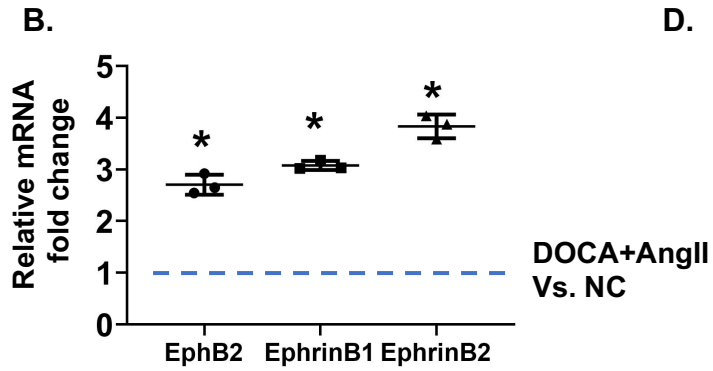
**Figure S1.** EphB receptors /Ephrin-Bs mRNA expression. **A.** EphB/EphrinBs mRNA expression in normal adult mouse kidney determined by real time RT-PCR. **B.** EphB2, EphrinB1& EphrinB2 mRNA expression in renal tubular epithelial cells and fibroblasts. Total RNA was isolated either from cultured human renal tubular epithelial cells (HK2), or rat renal fibroblasts (NRK-49F) (obtained from ATCC, Rockville, MD, USA), and was amplified by using one-step RT-PCR following the company instruction (Invitrogen). Each specie's  $\beta$ -actin was used as positive expression control. The 1.5% agarose gel electrophoresis photo showed a specific single band with the expected size for each targeted gene. Mr: DNA size ladder marker. The primers used for this assay are included in Table S1.

Figure S2

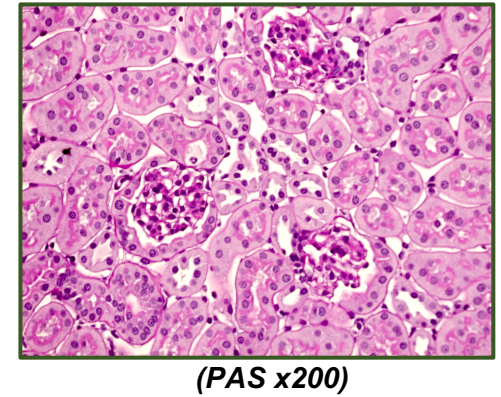
- Diabetic db/db mice at 22wk



- DOCA & Ang II-induced CKD mouse model



- Normal mouse



**Figure S2.** Expression of EphB2, EphrinB1 and EphrinB2 increases in the kidney of type 2 diabetic db/db mice and DOCA & Ang II-infused hypertensive CKD mice. Total RNA was isolated from renal cortex tissue of uninephrectomized type 2 diabetic db/db mice at age of 22 wk (**A**, n=10/each group) and DOCA & angiotensin (Ang II)-infused CKD mice (**B**, n=5/each group) as described previously (1, 2) and quantified by using real time RTPCR. Results are shown as fold change compared to uninephrectomized normal mouse kidneys (NC). Error bars represent mean $\pm$ SD. **C-E**. Their kidney histological PAS staining photos are included in (**C**) for db/db mice with glomerulosclerosis, (**D**) for DOCA & Ang II induced CKD mice with both glomerular and tubular fibrosis, compared with uninephrectomized normal mice (NC) (**E**). Magnification x 200. \*P<0.05 vs. NC.



**Table S1. Primers used for real time PCR or one-step PCR**

Gene	Primer	Sequence 5'-3'	PCR product size (bp)
Rat EphB2	Forward	ACCGGAAATTCACCTCAGCC	234
	Reverse	TGACGATCTGGCCGAACTTG	
Rat EphrinB1	Forward	CGTAACGCCTGAGCAGTTGA	75
	Reverse	AGCCTGTGTGGCTGTCTTGAC	
Rat EphrinB2	Forward	AAGTGGCCTTATTCGCAGGG	112
	Reverse	GGAGAGTGTTTGCGGTGTCT	
Rat $\beta$ -actin	Forward	CTCTGTGTGGATTGGTGGCT	136
	Reverse	AGCTCAGTAACAGTCCGCCT	
Human EphB2	Forward	ACGCACCGTGGCAGGCTACG	156
	Reverse	GGCGATGACAACCACAGCAATGAGG	
Human EphrinB1	Forward	ATGTAAAAGGCAGCCCCTCC	249
	Reverse	ACCCATTGCCAGGATAAGC	
Human EphrinB2	Forward	GCGGTCACTCAGGCCTCTGC	123
	Reverse	GGGGGAAATGCAGCCCCTCC	
Human $\beta$ -actin	Forward	CATGTACGTTGCTATCCAGGC	250
	Reverse	CTCCTTAATGTCACGCACGAT	