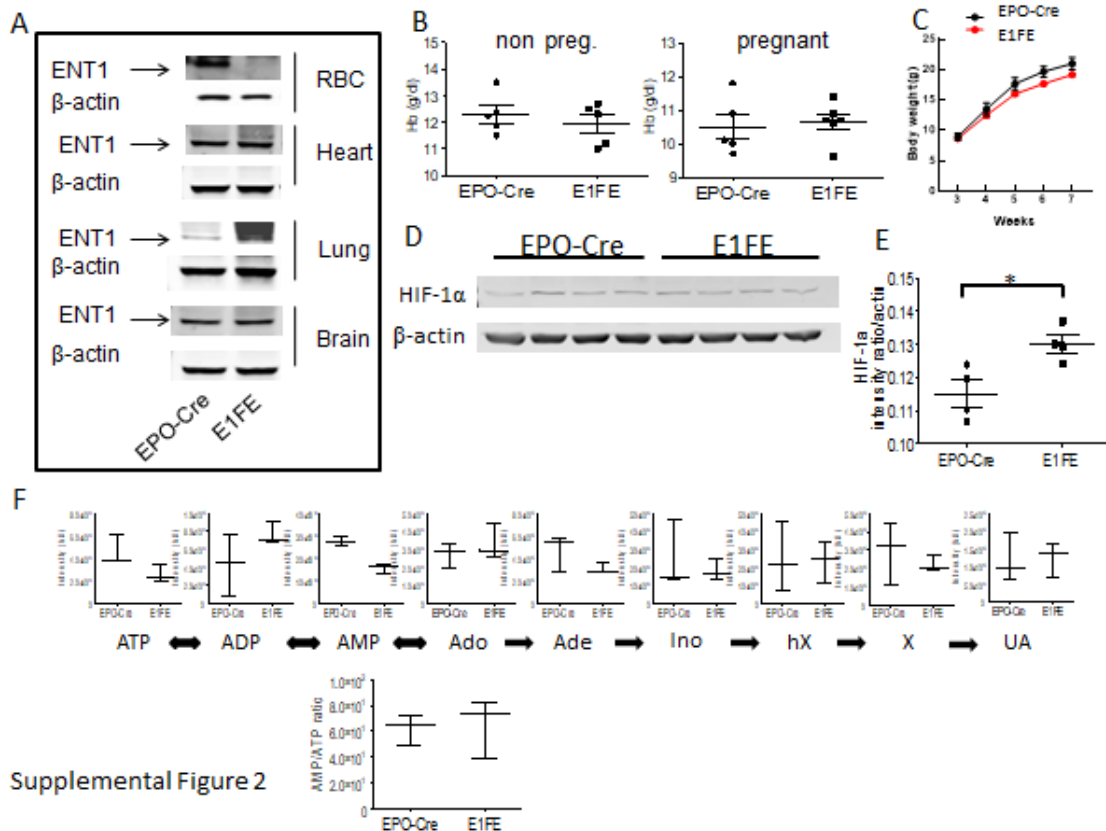


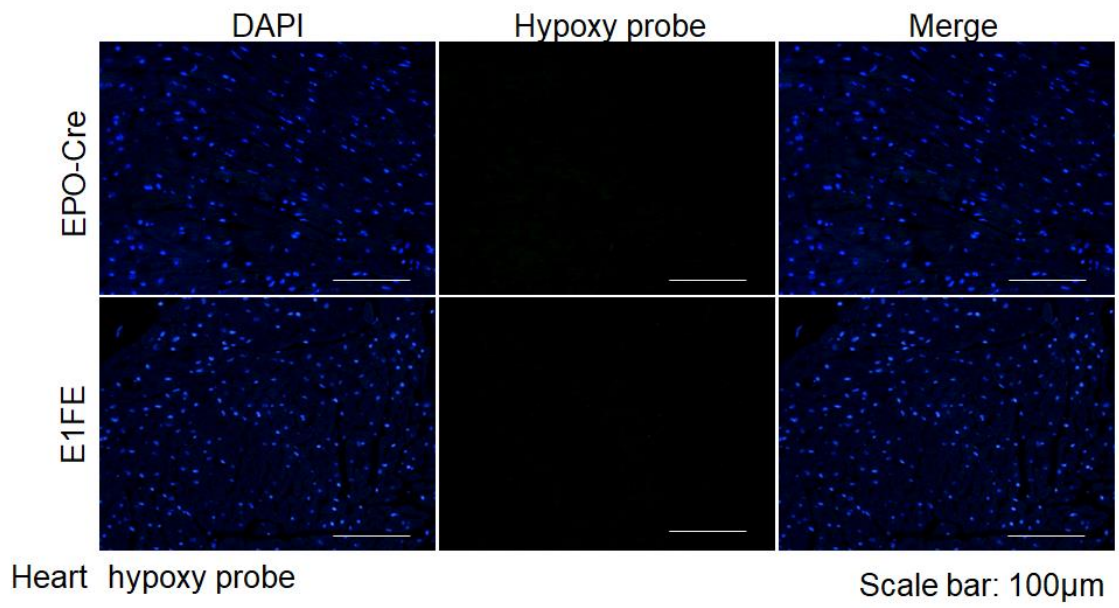
Supplemental figure 1

(A-C) There was no significant difference in plasma adenosine level (n=8 for EPO-Cre and n=9 for E1FE), systolic blood pressure (sBP), or the amount of proteinuria between EPO-Cre and E1FE. (n=7) (D, E) The concentration of leucine in the placenta is decreased in E1FE placenta, whereas its concentration is increased in the maternal plasma compared to EPO-Cre. (n=5)



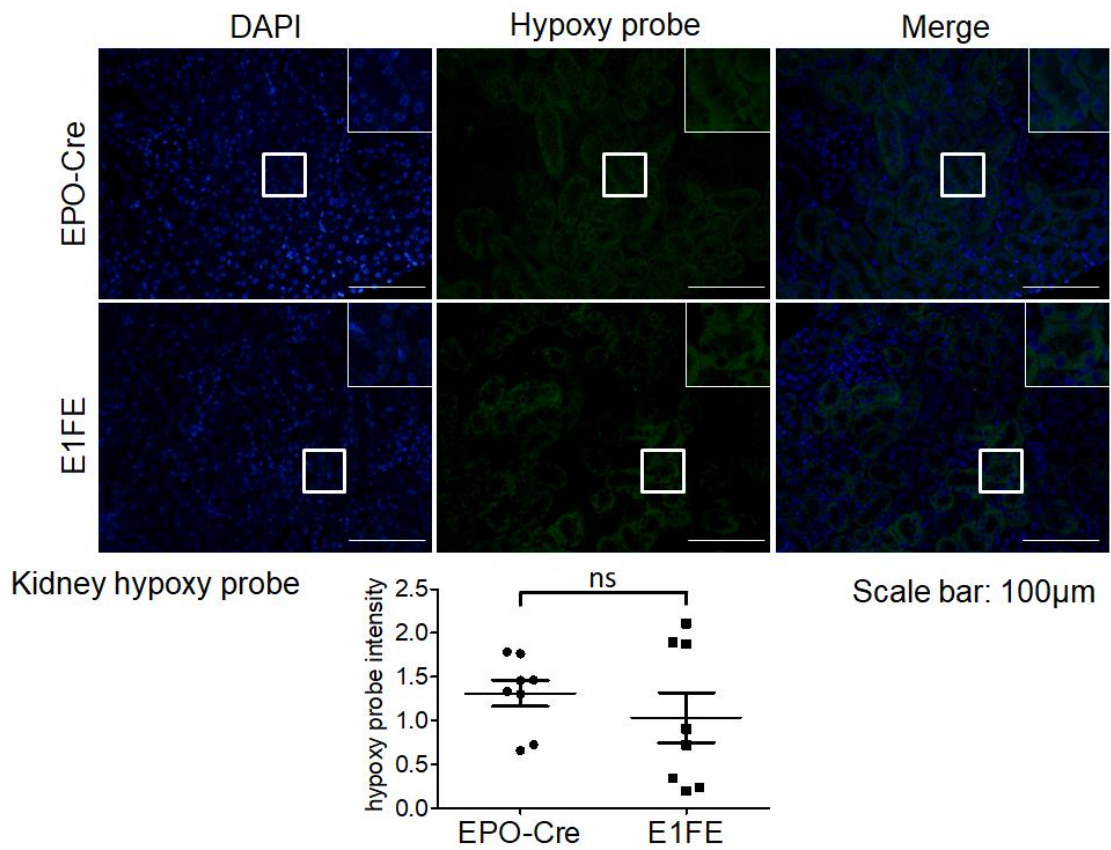
Supplemental figure 2

(A) ENT1 is dramatically decreased in the RBCs, whereas ENT1 is not decreased in other tissues such as heart, lung, and the brain. (B) There is no significant difference in hemoglobin levels between E1FE and EPO-Cre at non pregnant or pregnant state. Physiological decrease in hemoglobin level is observed in both E1FE and EPO-Cre dams. (n=5) (C) There is no significant difference of growth curve between pups born from the control and E1FE. (n=6) (D,E) Western blot analysis of HIF-1 $\alpha$  expression in the placentas from E1FE and EPO-Cre showed HIF-1 $\alpha$  is significantly increased in the E1FE placenta. (n=4) \*P<0.05 (F)The metabolomic data from non-pregnant mice shows the feature for the decrease in AMP/ATP ratio seems to be absent at non-pregnant state. (n=3)



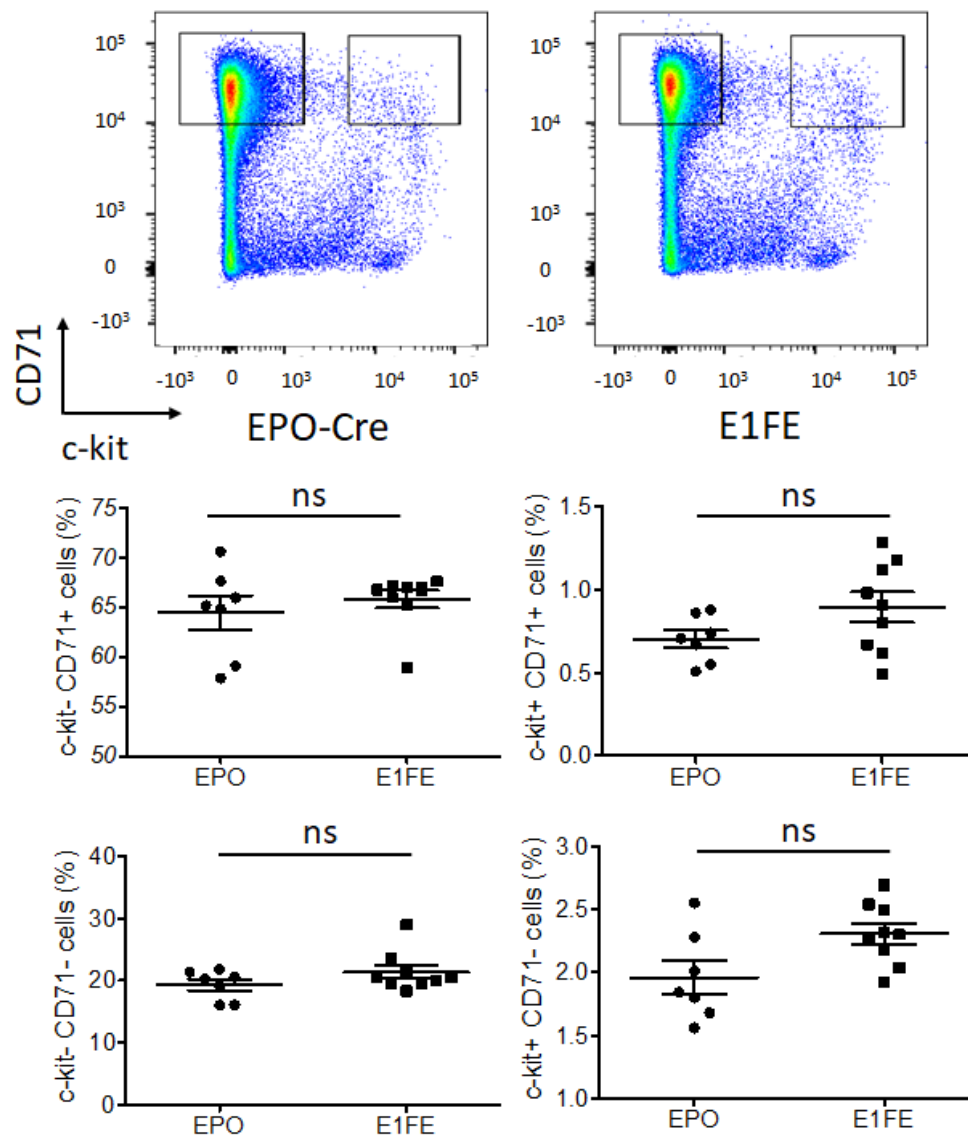
Supplemental figure 3

There is no significant difference of hypoxia levels between EPO-Cre and E1FE dams in the heart.



Supplemental figure 4

There is no significant difference of hypoxia levels in the kidney between EPO-Cre and E1FE dams. (n=8)



Supplemental figure 5

The flow cytometry of the single fetal liver cells from fetus derived from EPO-Cre and E1FE dams showed that the population of c-kit and CD71 positive and negative cells did not differ significantly between E1FE and EPO-Cre. (n=7 for EPO-Cre and n=9 for E1FE)