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Supplemental Data

Enhanced Hypoxia-Inducible Factor (HIF)-1α Stability Induced by 5-Hydroxymethyl-2-Furfural (5-HMF) Contributes to Protection against Hypoxia

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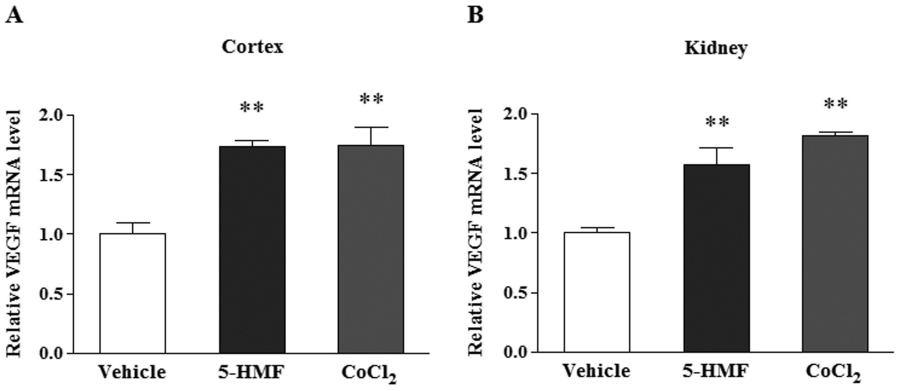
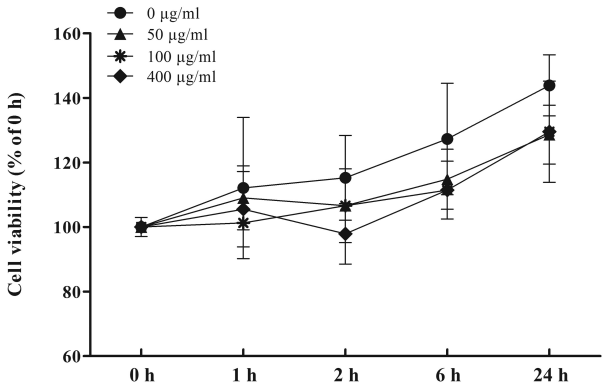
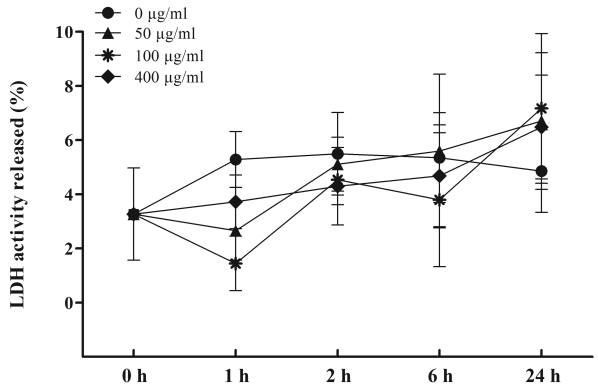


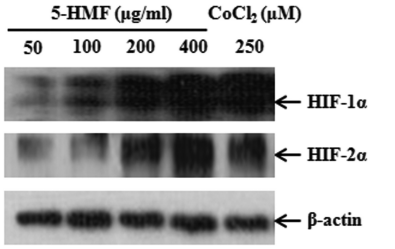
Supplementary Figure S1. Effects of 5-HMF on *VEGF* mRNA in C57BL/6J mice. (A) and (B) The *VEGF* mRNA expression in the cortex and in the kidney. The *VEGF* mRNA levels were examined by real time PCR. The data are representative of three different experiments and are expressed as the means ± SE. $^{**}p < 0.01$, compared with the vehicle.



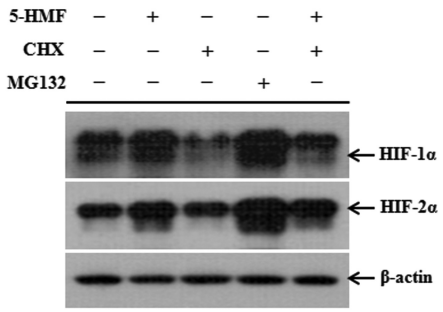
Supplementary Figure S2. Cell proliferation during 24 h treated with different concentrations of 5-HMF. PC12 cells were exposed to 50, 100, 400 μg of 5-HMF for 1 h, 2 h, 6 h, and 24 h. At the indicated time points cells were collected to test cell viability by MTT assay. Values are the means ± SE of three independent experiments.



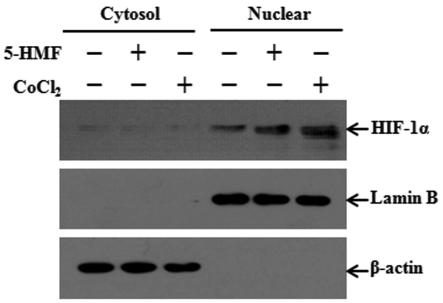
Supplementary Figure S3. Cell toxicity during 24 h treated with different concentrations of 5-HMF. PC12 cells were exposed to 50, 100, 400 μg of 5-HMF for 1 h, 2 h, 6 h, and 24 h. At the indicated time points cells were collected to test cell viability by LDH cytotoxicity assay. Values are the means ± SE of three independent experiments.



Supplementary Figure S4. Expressions of HIF-1α and HIF-2α in a dose dependent after cells were treated with different concentrations of 5-HMF. PC12 cells were exposed to 50, 100, 200, 400 μg of 5-HMF or 250 μM $CoCl_2$ (as a positive control) for 1 h, followed by detection with western blot. β-actin was used as an internal loading control.



Supplementary Figure S5. The increased stability of HIF-1α and HIF-2α by 5-HMF. After PC12 cells were treated with CHX (100 μM), 5-HMF (100 μg/ml) or MG132 (10 μM), western blot was used to detect the expressions of HIF-1α and HIF-2α. β-actin was used as an internal loading control.



Supplementary Figure S6. The increased nuclear translocation of HIF-1α by 5-HMF in PC12 cells. PC12 cells were exposed to 5-HMF or $CoCl_2$ for 1 h. After that, cytoplasm and nucleus were separately collected and analyzed with western blot. Lamin B was used as an internal loading control for nucleus, and β-actin was used as an internal loading control for cytoplasm.