

**Supplementary Figure 1**: Protein expression in the Phd 2 deficient heart. Hearts from mouse embryos ( $PGKCre \ x \ Phd2flox/flox$ ) were isolated at E14.5 and western blot analysis was performed on protein extracts (10 μg total protein). The anti mouse-Phd2 antibody targeted the C-terminal end of the protein (homemade). No PHD2 signal could be detected in the Phd2-/- heart (as in the rest of the embryo (data not shown)) resulting in the protection of HIF-1 $\alpha$  protein from degradation.  $\beta$ -tubulin served as loading control.