



**Supplemental Figure 2:** Expression ( $\Delta Ct$ ) of 84 hypoxia responsive genes in WT and TS5KO in vivo tendons before (UI) or after injection of TGF- $\beta$ 1 (3d) and explanted tendons maintained in basal (20% O<sub>2</sub>), basal + TGF- $\beta$ 1, or 2.5% O<sub>2</sub> conditions. Genes are separated based on function: HIF1A Signaling, Angiogenesis, Glycolytic Metabolism, and Cell Fate (gene order can be seen in Supplemental Table 2). Three replicate tissue pools were analyzed for each in vivo group and one tissue pool for in vitro groups (see Supplemental Table 1 for details). Blank spaces indicate no amplification of qt-PCR signal for that gene in a given sample.