



SUPPLEMENTARY FIG. S4. Total TERT protein levels in 2% O₂-cultured hESCs decrease when cells are exposed to 20% O₂. Representative western blot analyses of nonphosphorylated TERT (**A**) and phospho-TERT (**B**) in pluripotent hESCs cultured for varying exposure times in 20% O₂ after 2% O₂ culture using primary antibodies (Abgent, Inc.) against nonphosphorylated (np)TERT (Y707) and phosphorylated (p)TERT (Y707). HDFs, human dermal fibroblasts; DCA1, differentiated CA1 hESCs. The expected hTERT band of ~127 kDa was detected. TERT protein bands were normalized to β -actin loading controls. (**C–H**) Densitometric analyses of western blots reveal that total (nonphosphorylated and phosphorylated) hTERT protein levels decrease and the proportion of phospho-TERT increases in hESCs cultured in 20% O₂ compared with those grown in 2% O₂ conditions. Error bars represent SE, $n=2$, * $P<0.05$.