



**Supplementary Figure 2. *mtDNA deletion mutation accumulation.*** *mtDNA* deletion mutations were evaluated using a nested-primer PCR strategy. Long extension PCR of Tg and WT *mtDNA* (left panel) amplified only full length *mtDNA*, reflecting the predominance of full-length *mtDNA* in both wild type and transgenic samples. PCR using 1/10 or 1/100 dilutions of the first PCR product as template for a second PCR using nested primers and shortened extension time permitted preferential amplification of low levels of *mtDNA* containing deletion mutations. A product indicating a deletion mutant is observed in Tg *mtDNA* as indicated by the band at ~7.5 kb, detectable only in the second round of amplification (right panel).