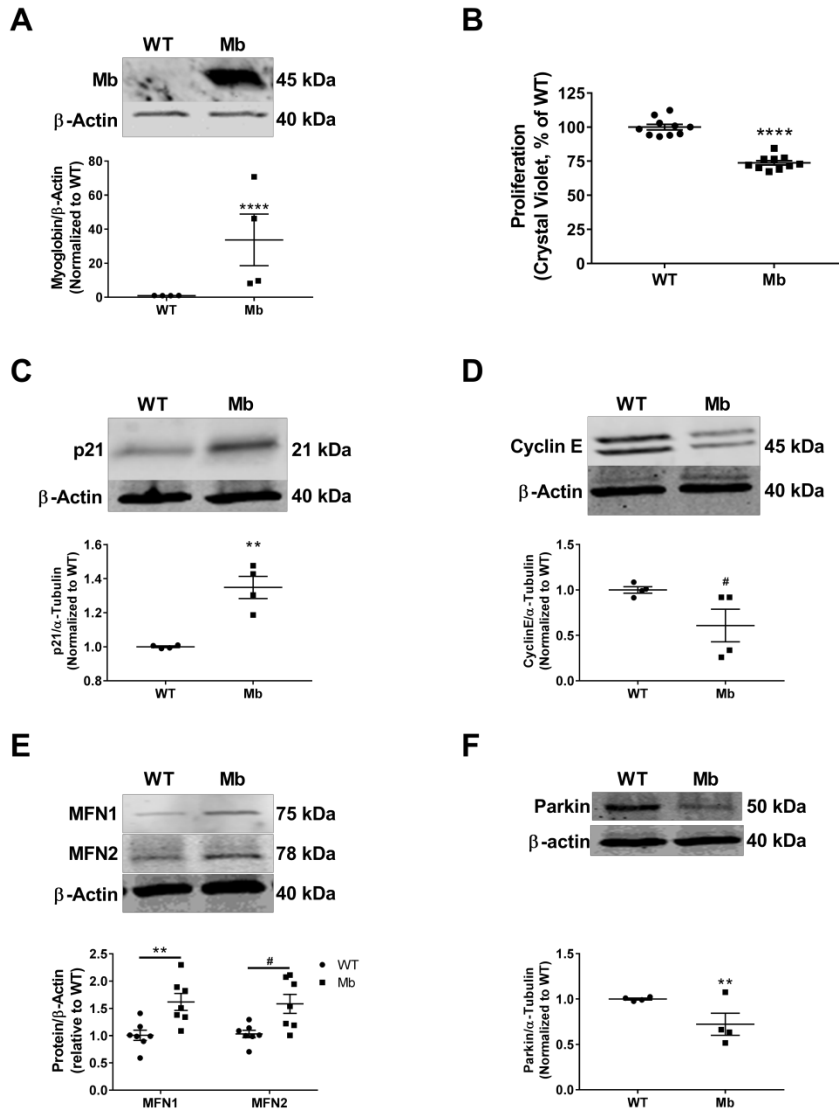


**Supporting Information:**



**Figure S1:** Expression of myoglobin in MCF7 cells decreases cellular proliferation through parkin oxidation. (A) Representative western blot and densitometry quantification of myoglobin expression in wildtype cells (WT) and MCF7 cells transfected to express GFP-tagged human myoglobin (Mb). n = 4 per group. \*\*\*\*p<0.0001. (B) Cellular proliferation using Crystal Violet assay normalized to wildtype MCF7 cells 72 hours after seeding for wildtype MCF7 cells and myoglobin expressing MCF7 cells. n = 10 per group. \*\*\*\*p<0.0001. (C) Western blot analysis and densitometry quantification of the expression of the G1 to S phase protein p21 in wildtype MCF7 cells and myoglobin expressing MCF7 cells. n = 4. \*\*p<0.005. (D) Western blot analysis and densitometry

quantification of the expression of the G1 to S phase protein cyclin E in wildtype MCF7 cells and myoglobin expressing MCF7 cells. n = 4. #p<0.05. (E) Representative western blots and densitometry quantification of MFN1 and MFN2 protein expressions in wildtype MCF7 cells and myoglobin expressing MCF7 cells. n = 6 per group. #p<0.05, \*\*p<0.05. (F) Western blot analysis (top) and densitometry quantification (bottom) of Parkin expression in wildtype MCF7 cells and myoglobin expressing MCF7 cells. n = 3, \*\*p<0.005.