

Figure S1. Negative control of the α -syn immunocytochemistry procedure. Representative pictures from astrocytes and U87MG cells at light (**A**) and transmission electron microscopy (**B**) were obtained by omitting the anti- α -syn primary antibody. All pictures show the absence of immunoreaction. (**A**) Scale bar=35 μ m, (**B**) Scale bar = 0.6 μ m (low magnification); Scale bar = 0.15 μ m.

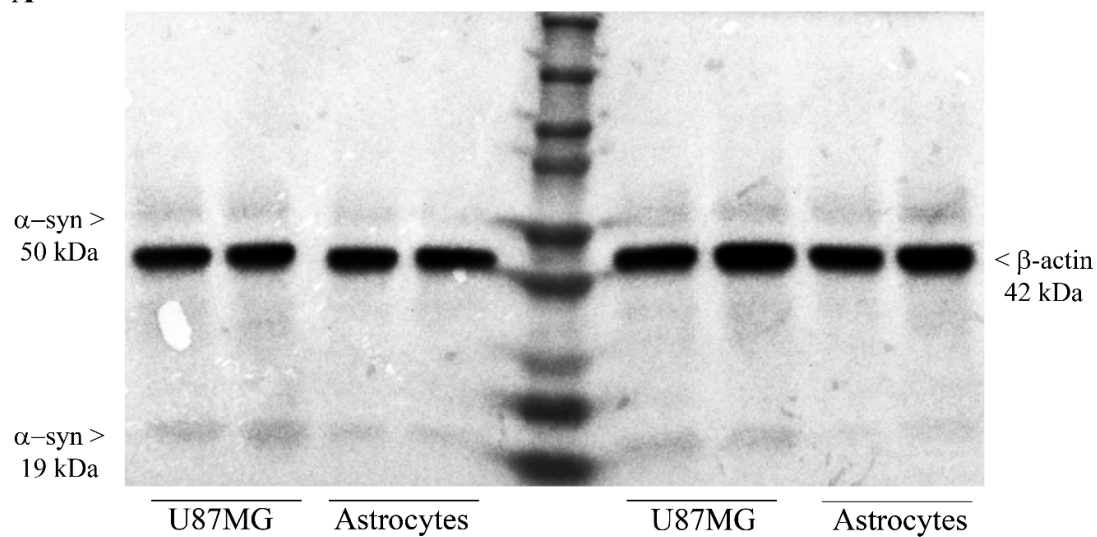
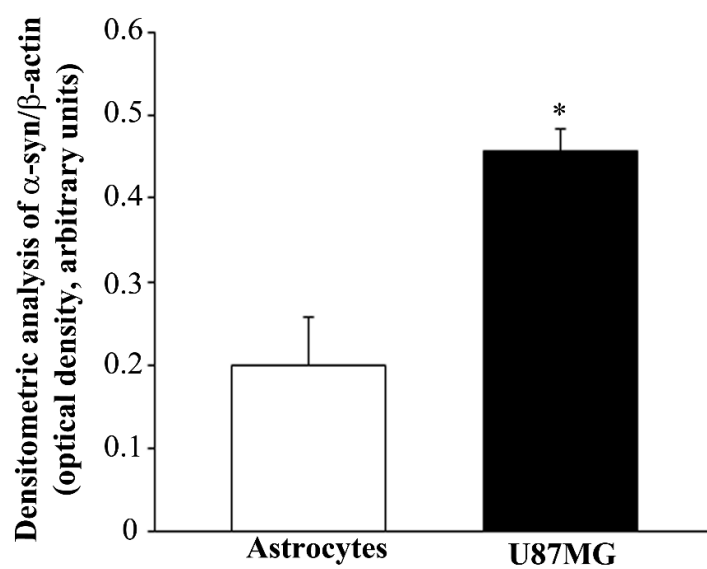
A**B**

Figure S2. Immuno-blotting for a-syn in astrocytes and U87MG cells in baseline condition. **(A)** Representative immuno-blotting for $\alpha\text{-syn}$ and the housekeeping $\beta\text{-actin}$ is shown. **(B)** The graph reports the related optical density. Values are given as the mean \pm S.E.M. of $n = 3$ blots obtained in $N=1$ experiment. * $p < 0.05$ compared with astrocytes. .

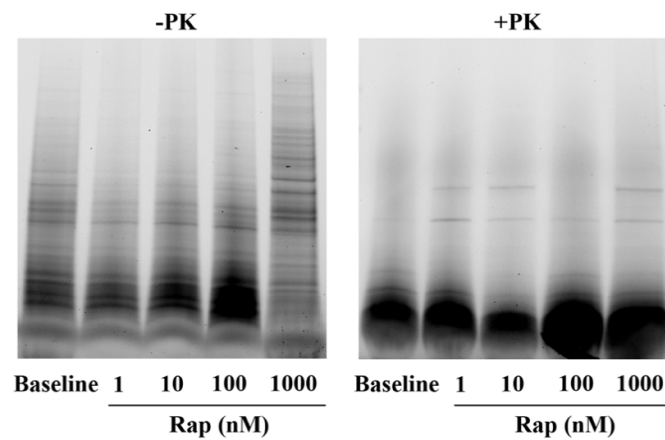


Figure S3. Stain free gel following PK. Representative images showing the pattern of protein bands visualized by using a stain-free gel enabled Bio-Rad UV transilluminator (ChemiDoc) without exposure to the denaturing agent (-PK) and following exposure to PK (+PK).

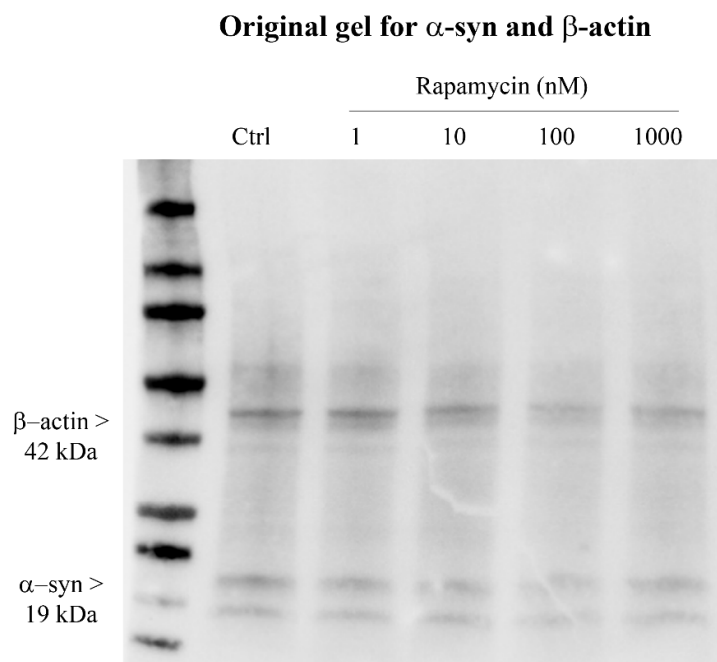


Figure S4. Original gel for α -syn and the housekeeping protein β -actin shown in Figure 8.

Original gel for PK-resistant α -syn

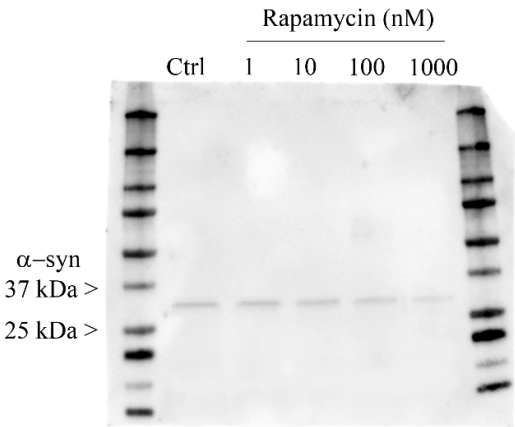


Figure S5. Original gel for α -syn and the housekeeping protein α -actin shown in Figure 9.

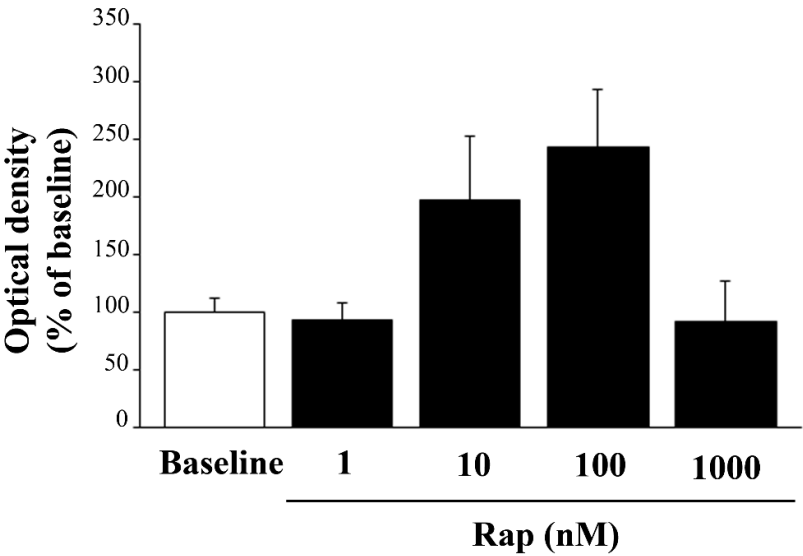


Figure S6. Alternative quantification of immuno-blotting for PK-resistant α -syn with respect to the monomeric α -syn from PK-untreated samples.

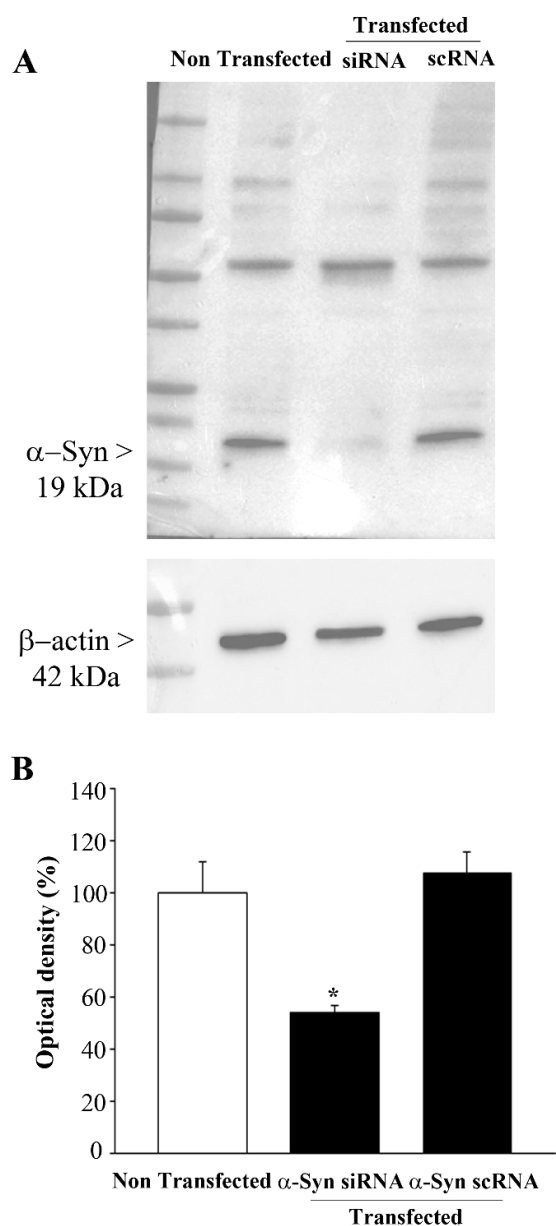


Figure S7. Immuno-blotting for α -syn in U87MG cells transfected with α -syn siRNA. (A) Immunoblotting for α -syn in non-transfected, α -syn siRNA transfected and scRNA transfected cells is shown. (B) The graph reports the optical density as a ratio between the optical density of α -syn and that of β -actin (non-transfected cells as 100%). Values are given as the mean percentage \pm S.E.M. of n=3 blots obtained in N = 1 experiment. .

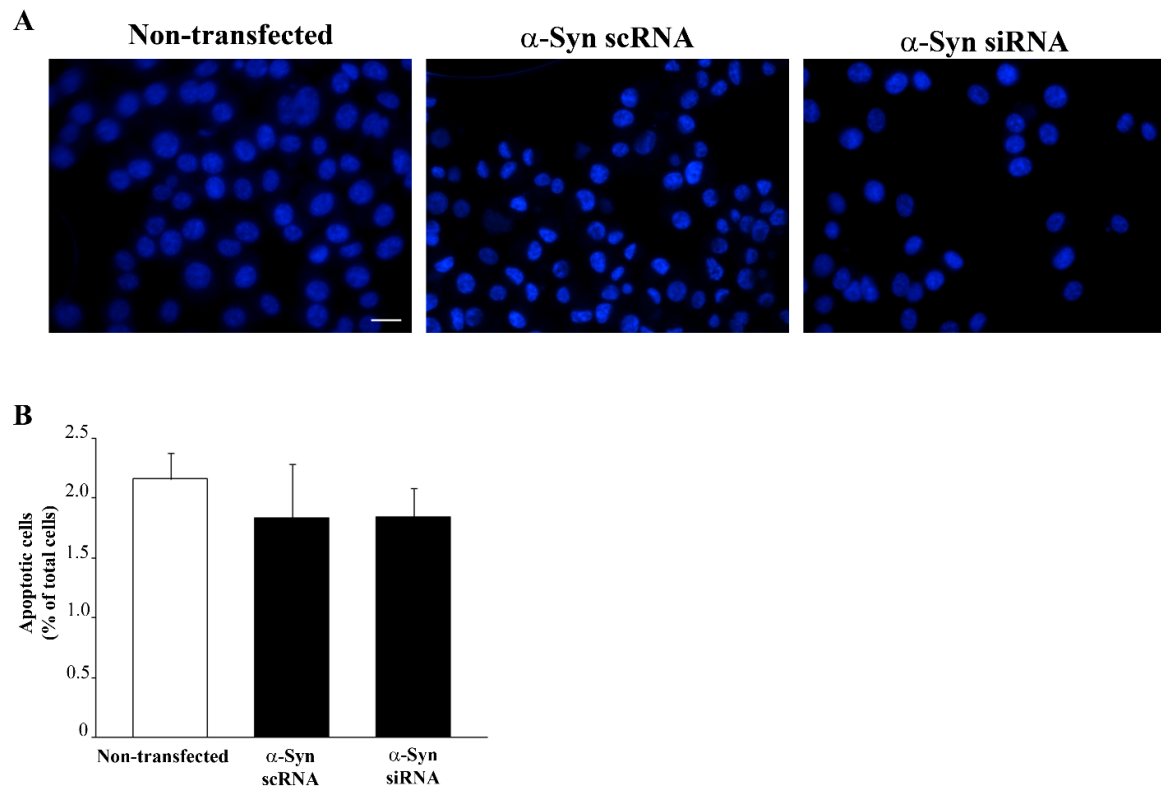


Figure S8. Silencing α -syn in U87MG cells does not induce apoptosis. **(A)** Representative pictures of Hoechst-fluorescent nuclei from non-transfected, scRNA transfected and α -syn siRNA transfected cells are shown. **(B)** Graph reports the percentage of apoptotic cells counted in each experimental group out of the total number of cells. Scale bar = 25 μ m.