**Supplemental Fig. 1 – Comparison of the effects of the autophagy inhibitors 3-MA and chloroquine on ubiquitinated proteins, p62/sqstm1, LC3-I and II in SK-N-SH cells.** Western blot analyses (8% or 10% gels) to detect ubiquitinated proteins, p62/sqstm1, LC3-I, LC3-II and actin as loading control in total extracts of human SK-N-SH neuroblastoma cells (40 µg of protein/lane). Cells were treated with the different inhibitors for 24h. Molecular mass markers in kDa are shown on the right. Similar results were obtained in duplicate experiments. 3-MA, 3-Methyladenine; CQ, chloroquine. The levels of ubiquitinated proteins (Ub), p62/sqstm1 (p62), LC3-I and LC3-II were semi-quantified by densitometry (*graph on the right*).

Supplemental Fig. 2 – Effect of chloroquine (CQ) and epoxomicin (Epx) on ubiquitinated protein, p62/sqstm1, LC3-I and LC3-II levels in wild type (WT) and Atg5-/- mouse embryonic fibroblasts (MEF). Western blot analyses (8% or 10% gels) to detect ubiquitinated proteins (A), p62/sqstm1 (B), LC3-I and –II (C) and the proteasome  $\alpha$ 4 subunit (D, loading control) in total cell extracts (40 µg of protein/lane) treated with each inhibitor for 24h. Molecular mass markers in kDa are shown on the left. The protein levels were semi-quantified by densitometry (E). Data represent the relative intensity and means and s.d. from duplicate experiments. The *asterisks* identify values that are significantly different (\**p at least* <0.05; \*\**p*<0.01) from control conditions (0).

Supplemental Fig. 3 – Effect of chloroquine (CQ, 10 $\mu$ M) and epoxomicin (Epx, 5nM) on ubiquitinated protein, p62/sqstm1, LC3-I and LC3-II levels in rat primary neuronal cortical cultures. Western blot analyses (10% gels) to detect ubiquitinated proteins (A), p62/sqstm1 (p62, B), LC3-I and –II (C) and  $\beta$ -tubulin (D, loading control) in total cell extracts (40  $\mu$ g of protein/lane) treated with each inhibitor for 24h, 48h, and 96h. Molecular mass markers in kDa are shown on the right. The protein levels were semi-quantified by densitometry (E). Data represent relative intensity obtained from at least three cell culture dishes per condition.



Supplemental Figure 1– Myeku & Figueiredo-Pereira



Supplemental Figure 2– Myeku & Figueiredo-Pereira



Supplemental Figure 3– Myeku & Figueiredo-Pereira