presence of lactacystin (5 μM) or vehicle control for the indicated time points. Shown is the percentage of Trypan blue-positive cells in each culture, normalized to untreated cultures, from three independent experiments, *$p<0.01$, (ANOVA with Scheffe post-hoc tests) compared to vehicle-treated cultures.

SUPPLEMENTAL FIGURES:

SUPPLEMENTAL FIGURE 1: PC12 cells were loaded with the fluorescence probe, 7-dichlorodihydrofluorescein diacetate (10 μM DCF-DA, Molecular Probes). Fluorescence images were acquired using a confocal microscope and quantified **(20).** Values are the average DCF fluorescence pixel intensity per cell before and after exposure to 0.5 mM MPP^+ at the indicated time periods. Values are mean ± S.D. of determinations made in four to five cultures; 30–40 cells assessed in each culture, *$p<0.01$, $^{\#}p<0.05$ (ANOVA with Scheffe post-hoc tests), compared to untreated cultures.

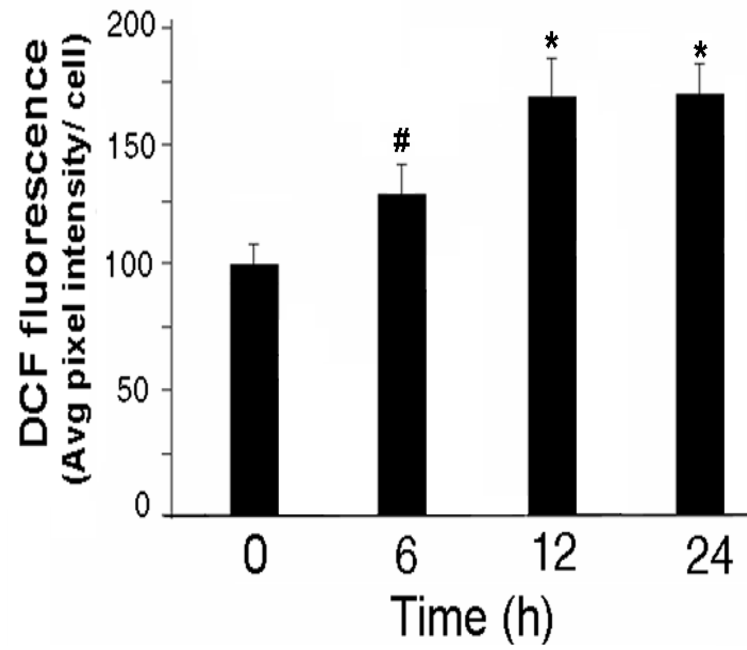
SUPPLEMENTAL FIGURE 2: The indicated PC12 clones were transfected with siRNA-CHOP or siRNA-Con (100 nM). One day after transfection, PC12 cells were exposed to 0.5 mM MPP^+ for the indicated time points and fixed for quantitation of cell death. Results were expressed as percentage of Trypan blue-positive cells in each culture, normalized to untreated cultures. Values represent mean ± SD of determinations made in four separate cultures, *$p<0.01$, $^{\#}p<0.05$ (ANOVA with Scheffe post-hoc tests), compared to PC12-VT cultures.

SUPPLEMENTAL FIGURE 3: **(A)** YC4-ER co-localizes with the ER marker calnexin before and after exposure to MPP^+ (0.5 mM). PC12 cells were transfected YC4-ER, fixed and immunostained with the calnexin antibody. Fluorescence images were acquired using a confocal microscope**.** **(B)** Pericam-mt co-localizes with the vital dye MitoTracker red in PC12 cells before and after exposure to MPP^+ (0.5 mM). Pericam-mt -transfected PC12 cells were loaded with Mitotracker red and imaged using a confocal microscope**.**

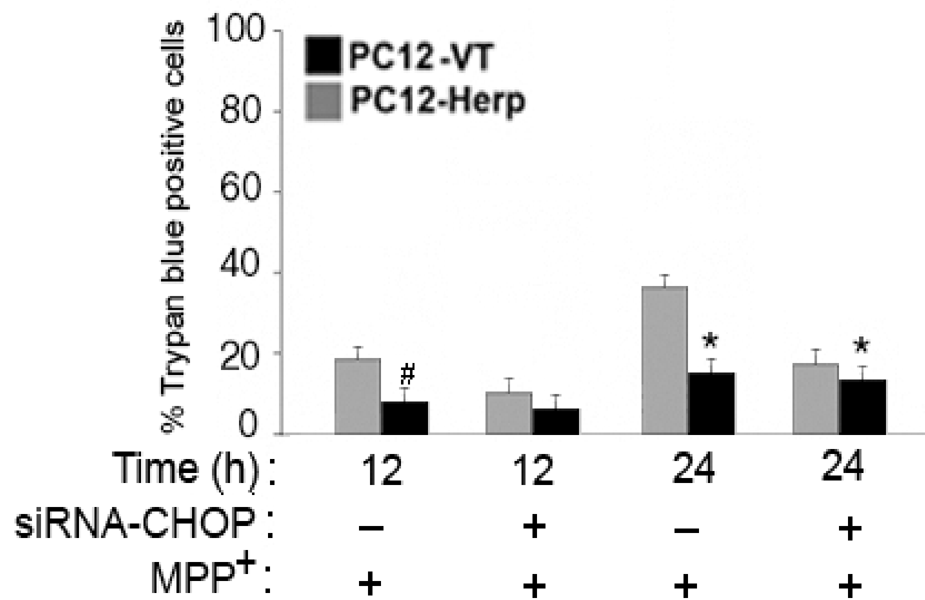
SUPPLEMENTAL FIGURE 4:. **(A)** Time course of Bcl-2 protein in total cell lysates (upper panels) and microsomes (lower panels) harvested from PC12-VT and PC12-Herp after incubation with 0.5 mM MPP^+. Microsomal fractions were isolated by differential centrifugation as described previously **(16).** Equal protein loading was confirmed by reprobing the immunoblots for ERK1 and calnexin (an ER-resident protein), respectively. **(B)**. Herp fails to interact with Bcl-2. A polyclonal mouse anti-Herp antibody was used for immunoprecipitation as described in Materials and Methods. The Bcl-2 protein is detected in the input (whole lysates) but not in the immune complexes bound to control IgG or Herp antibody. The heavy chain of IgG is indicated as IgG-h.

SUPPLEMENTAL FIGURE 5: PC12 cells were treated with 5 μM lactacystin or vehicle control. At the indicated time points, chymotrypsin-like activity of the proteasome were assessed in whole cell lysates using the fluorogenic peptide Suc-Leu-Leu-Val-Tyr-7-amino-4-methylcoumarin (LLVY-AMC) according to the method reported previously **(15).** Values are the average fluorescence intensity (360/440 nM) before and after exposure to 0.5 mM MPP^+ at the indicated time points. Values are mean ± S.D. of determinations made in four to five dishes, *$p<0.01$ (ANOVA with Scheffe post-hoc tests), compared to vehicle-treated cultures.

SUPPL. FIGURE 1



SUPPL. FIGURE 2

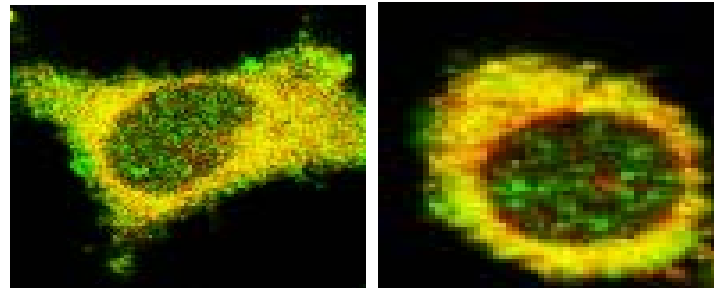


SUPPL. FIGURE 3

A

Control 24 h MPP^+

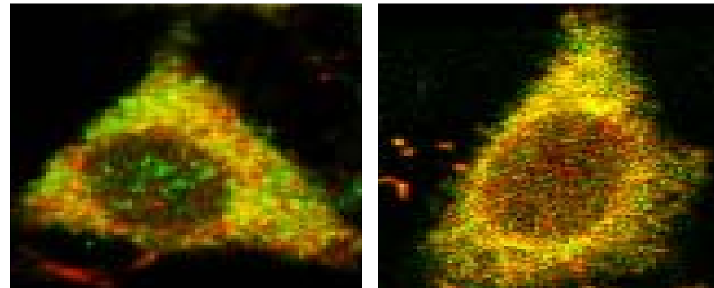
Mitotracker Red/
pericam-mt



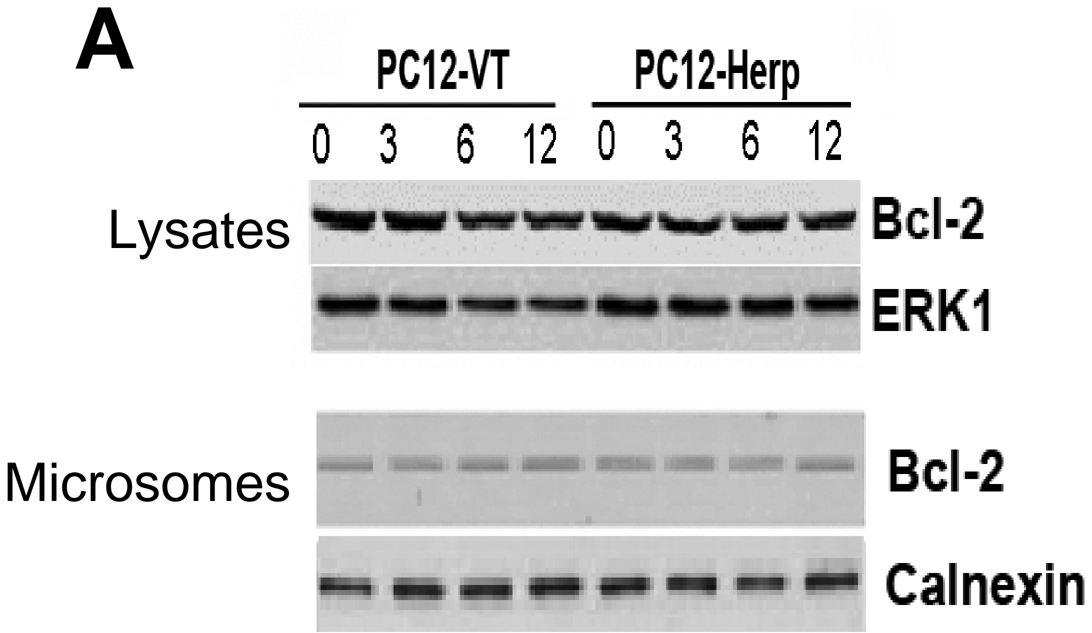
B

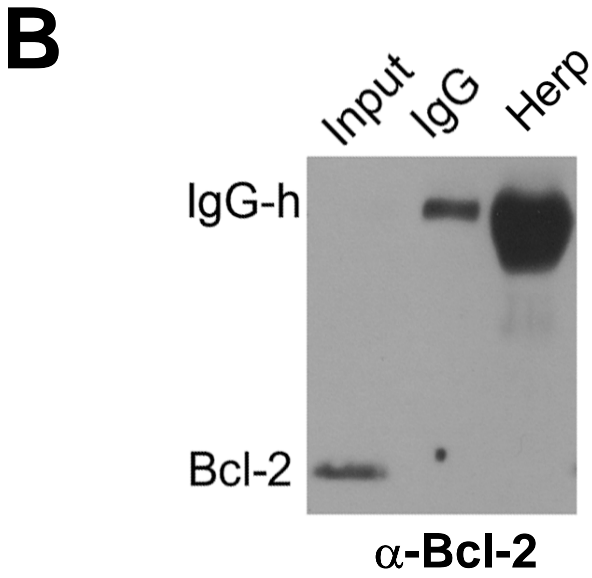
Control 24 h MPP^+

Calreticulin/
YC4-ER



SUPPL. FIGURE 4





SUPPL. FIGURE 5