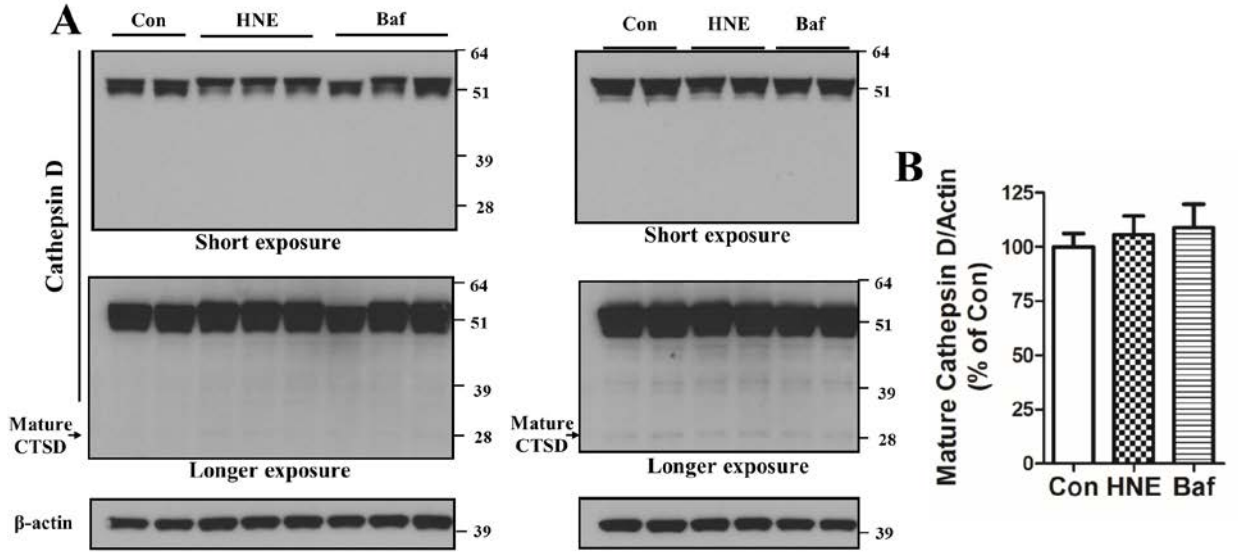
Early Involvement of Lysosome Dysfunction in the Degeneration of Cerebral Cortical Neurons Caused by the Lipid Peroxidation Product 4-Hydroxynonenal

Shi Zhang[1], Erez Eitan[1] and Mark P. Mattson[1, 2, *]

[1]Laboratory of Neurosciences, National Institute on Aging Intramural Research Program, BRC 5C214, 251 Bayview Boulevard, Baltimore, MD 21224, USA.

[2]Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD, 21205, USA.



Supplemental Figure 1

(A) Cortical neurons were treated for 6 hours with 0.5% ethanol (control), 5 μM HNE or 100 nM bafilomycin. Proteins in cell lysates were subjected to immunoblot analysis using a cathepsin D antibody. (**A**) Representative images of immunoblots of cathepsin D with short and long exposure times are shown. Arrows point to mature cathepsin D at the molecular weight of 28 kDa. (**B**) Results of densitometric analysis of blots showing relative levels of mature cathepsin D in neurons treated for 6 hours with 0.5% ethanol (control), 5 μM HNE or 100 nM bafilomycin. There were no significant differences among these groups.