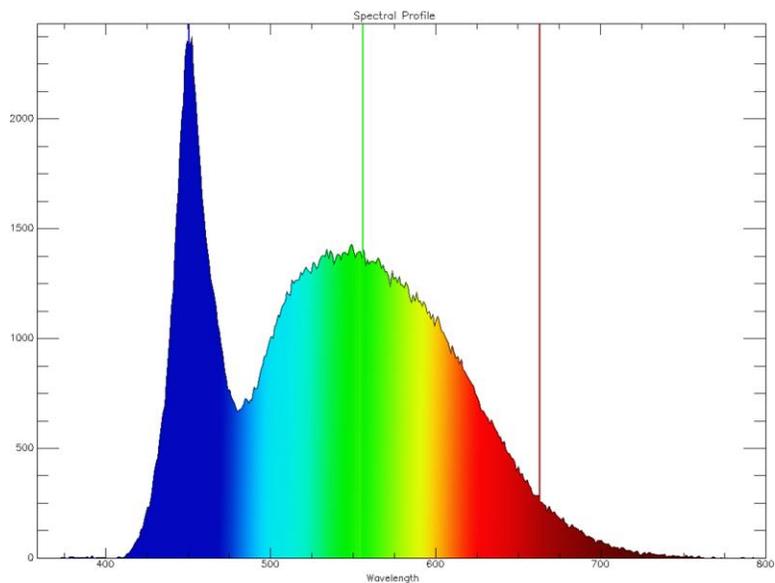
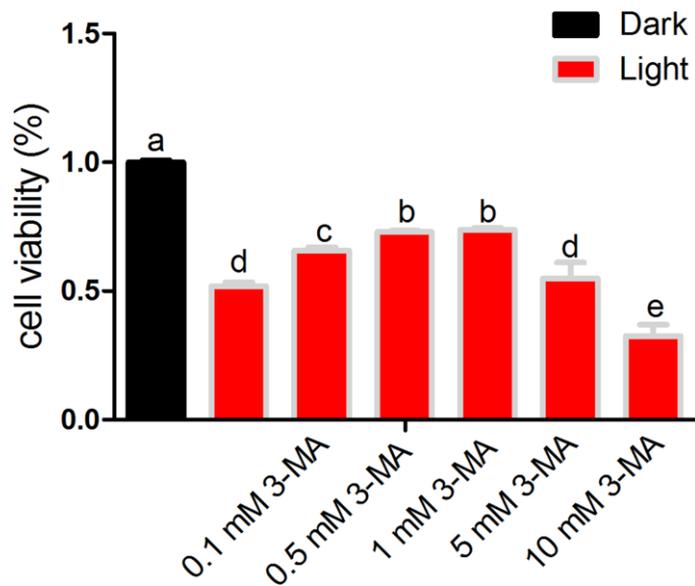


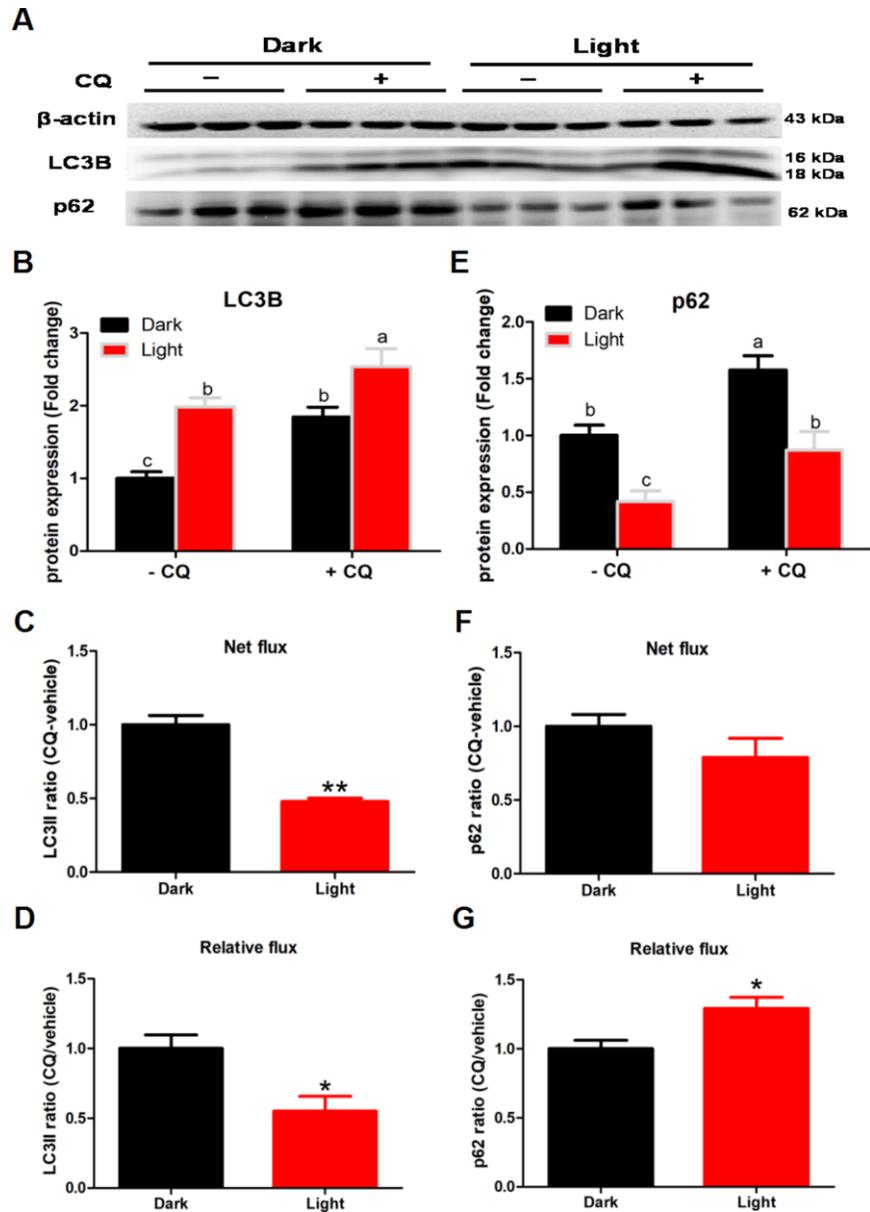
SUPPLEMENTARY MATERIALS



Supplementary Figure 1. Light spectrum of multichromatic white LED light.



Supplementary Figure 2. Cell viability in LED light exposed HT-22 cells treated with different concentrations of autophagy inhibitor, 3-MA. At low concentrations up to 1 mM, 3-MA was able to partially rescue the light-induced decrease in cell viability, yet at high concentrations, 5 mM and 10 mM, 3-MA failed to rescue or even further reduced the cell viability. Values are means \pm SEM. Bars with different superscripts are significantly different from each other ($p < 0.05$, $n = 10$).



Supplementary Figure 3. White LED light exposure influence autophagy flux in hippocampal neuron cells. To detect the effect of white LED light on autophagy flux, we added 50 μ M CQ with 2h after white LED light exposure. (A) Images of bands detected in Western blot analyses; (B) LC3B protein levels in Dark and Light group with or without CQ. Values are means \pm SEM. Bars with different superscripts are significantly different from each other ($p < 0.05$, $n = 3$); (C) Net flux of LC3II protein. Values are means \pm SEM, ** $p < 0.01$ compared with Dark group, $n = 3$; (D) Relative flux of LC3II protein. Values are means \pm SEM, * $p < 0.05$ compared with Dark group, $n = 3$; (E) p62 protein levels in Dark and Light group with or without CQ. Values are means \pm SEM. Bars with different superscripts are significantly different from each other ($p < 0.05$, $n = 3$); (F) Net flux of p62 protein. Values are means \pm SEM, $n = 3$; (G) Relative flux of p62 protein. Values are means \pm SEM, * $p < 0.05$ compared with Dark group, $n = 3$.