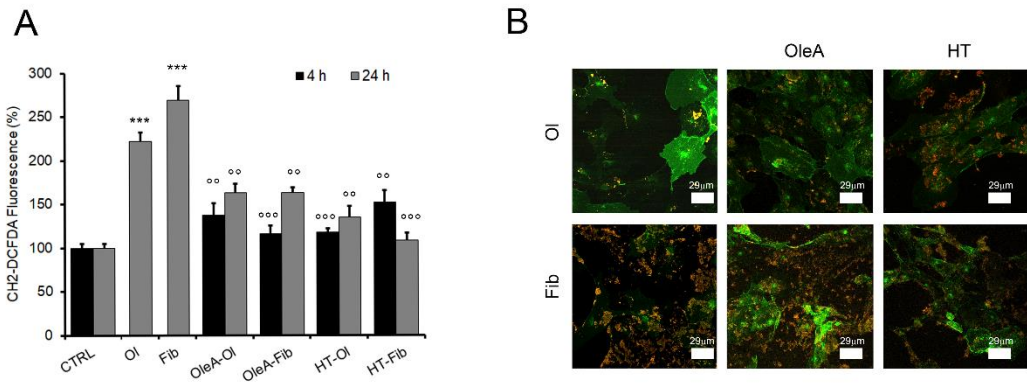
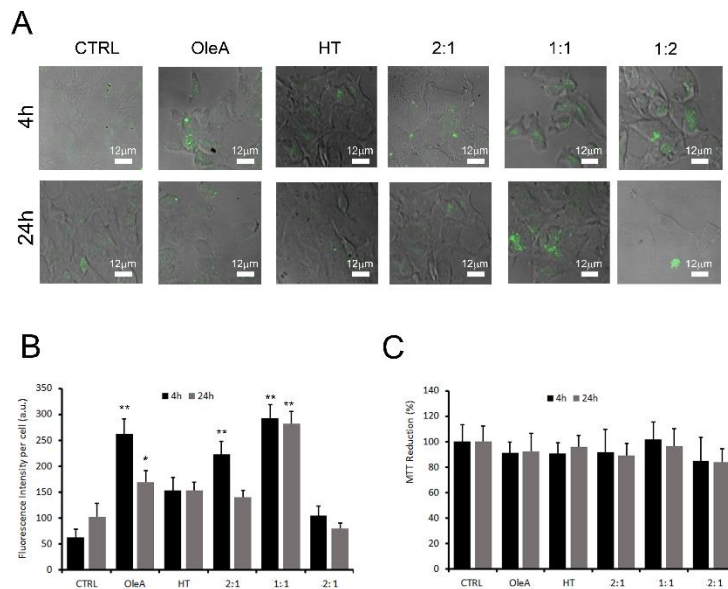


Supplementary Materials



Supplementary Figure S1. Polyphenols effects on Aβ₁₋₄₂ treated cells. ROS production in SH-SY5Y cells treated for 24 h with 2.5 μM Aβ₁₋₄₂ oligomers (OI) or fibrils (Fib) in absence or after cell pre-treatment with 75 μM OleA or HT for 4 h (black bars), 24 h (grey bars) (OleA-OI, HT-OI) or fibrils (OleA-Fib, HT-Fib) assessed by (A) CH2-DCFDA probe. DCFDA fluorescence is reported as percentage respect to untreated control cells. Error bars indicate the standard error of three independent experiments carried out in triplicate. ***: *p*-value < 0.001 vs untreated control cells. ^{oo}: *p* < 0.01; ^{ooo} *p* < 0.001 vs Aβ₁₋₄₂ aggregates-treated cells. (B) Confocal microscopy showing the co-immunolocalization of Aβ₁₋₄₂ aggregates (OI, Fib) and the membrane GM1 ganglioside in SH-SY5Y cells in the absence (OI, Fib) and in the presence of pre-treatment with OleA or HT for 24 h. The cells were stained with Alexa 488-conjugated CTX-B probe (green staining); Aβ₁₋₄₂ aggregates were stained with anti-Aβ₁₋₄₂ primary antibody and then with Alexa 568-conjugated anti-rabbit secondary antibody (red fluorescence).



Supplementary Figure S2. Autophagy detection in SH-SY5Y cells exposed to polyphenols alone or mixed (MIX). (A) SH-SY5Y cells were treated with 75 μM OleA or HT either separately or in mixture at different OleA/HT molar ratios (1:1, 37.5 μM:37.5 μM; 1:2, 25 μM:50 μM; 2:1, 50 μM:25 μM), for two lengths of time (4 h and 24 h). The autophagosomes (green) were labelled with the Cyto-ID[®] fluorescent dye. (B) Quantification of green fluorescence per cell obtained from three independent experiments and three different fields (about 20 cells/field). * *p* < 0.05; ** *p* < 0.01 vs untreated cells (CTRL). (C) MTT assay of SH-SY5Y exposed at the different conditions. Error bars indicate the standard error of three independent experiments carried out in triplicate.