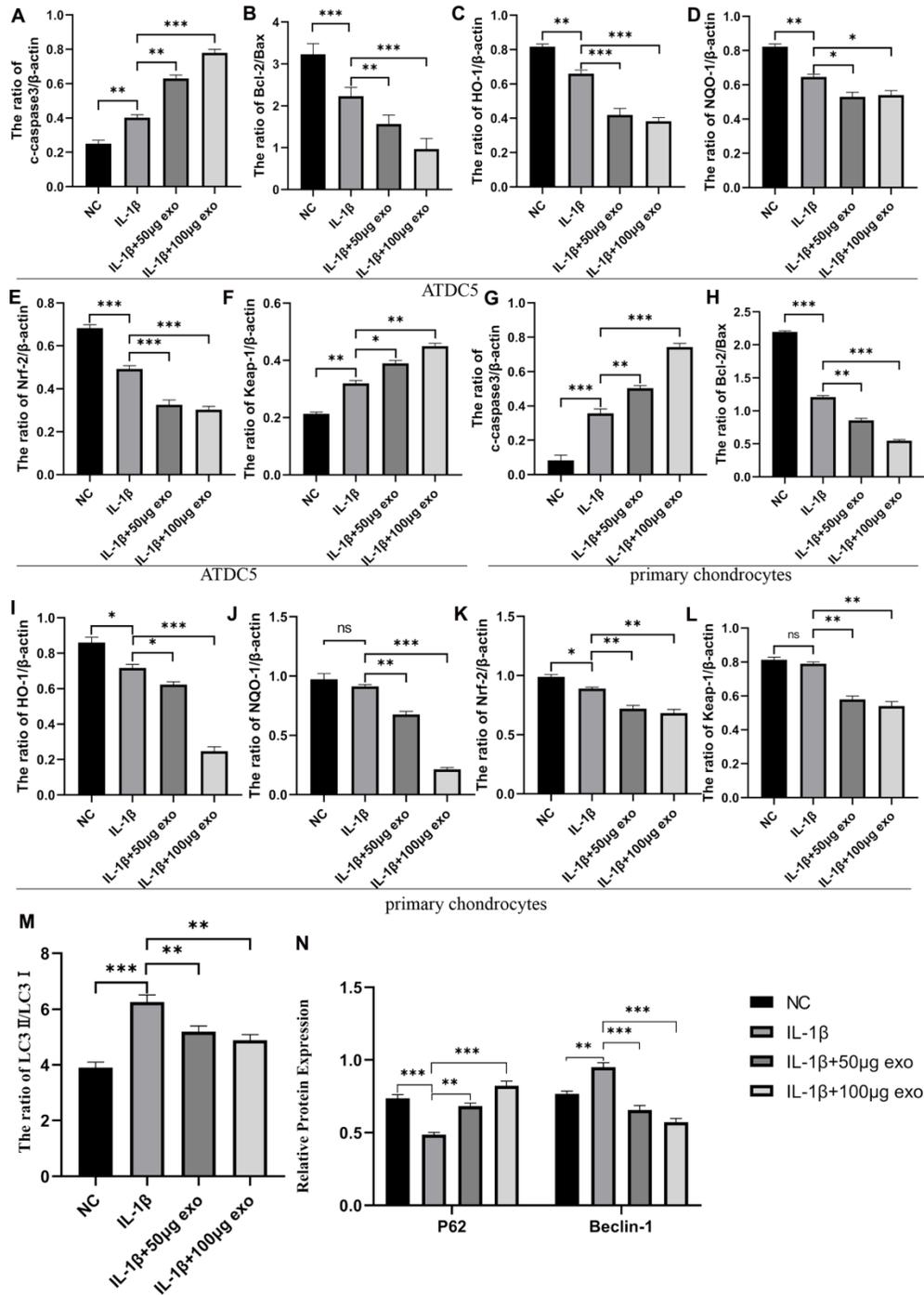
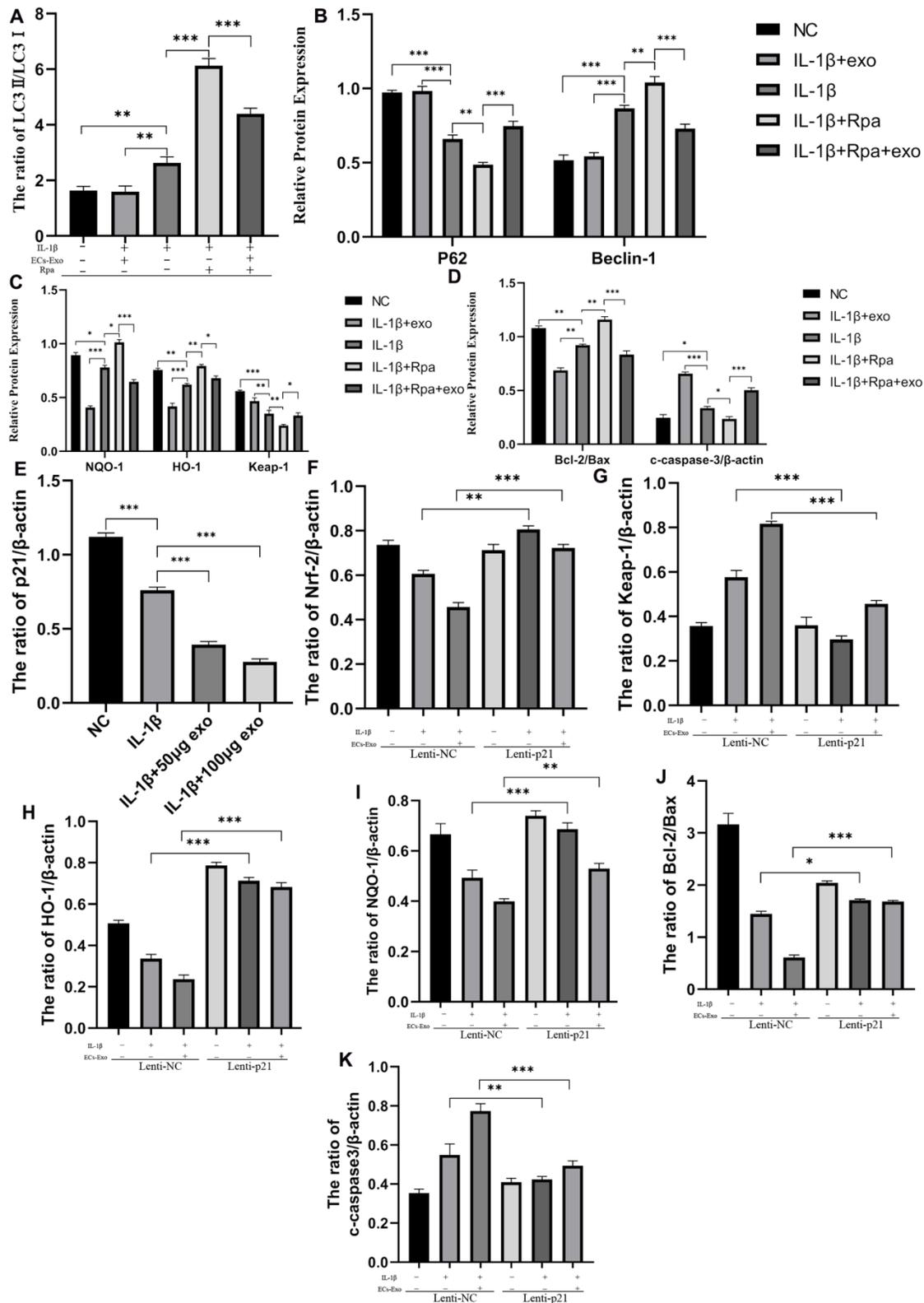


SUPPLEMENTARY FIGURES



Supplementary Figure 1. (A–F) The ratio of c-caspase3/ β -actin, Bcl-2/Bax, HO-1/ β -actin, NQO-1/ β -actin, Nrf-2/ β -actin and Keap-1/ β -actin in ATDC5 cells under different treatments. (G–L) The ratio of c-caspase3/ β -actin, Bcl-2/Bax, HO-1/ β -actin, NQO-1/ β -actin, Nrf-2/ β -actin and Keap-1/ β -actin in primary chondrocytes under different treatments. (M) The ratio of LC3II/LC3I in ATDC5 cells in different groups. (N) The ratio of autophagy marker proteins (p62 and Beclin-1) to β -actin in ATDC5 cells in different groups. ***p<0.001, **p<0.01, *p<0.05 (n = 3).



Supplementary Figure 2. (A) The ratio of LC3II/LC3I in ATDC5 cells under different treatments. (B) The ratio of autophagy marker proteins (p62 and Beclin-1) to β -actin in ATDC5 cells under different treatments. (C, D) The ratio of HO-1/ β -actin, NQO-1/ β -actin, Keap-1/ β -actin, c-caspase3/ β -actin and Bcl-2/Bax in ATDC5 cells under different treatments. (E) The ratio of p21/ β -actin in ATDC5 cells in different groups. (F–K) The ratio of HO-1/ β -actin, NQO-1/ β -actin, Nrf-2/ β -actin, Keap-1/ β -actin, c-caspase3/ β -actin and Bcl-2/Bax in ATDC5 cells under different treatments in the Lenti-NC group and Lenti-p21 group. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ ($n = 3$).