Electronic Supplementary Material (ESI) for Nanoscale.

Metal–Organic Frameworks induce Autophagy in Mouse Embryonic Fibroblast Cells

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Supporting information

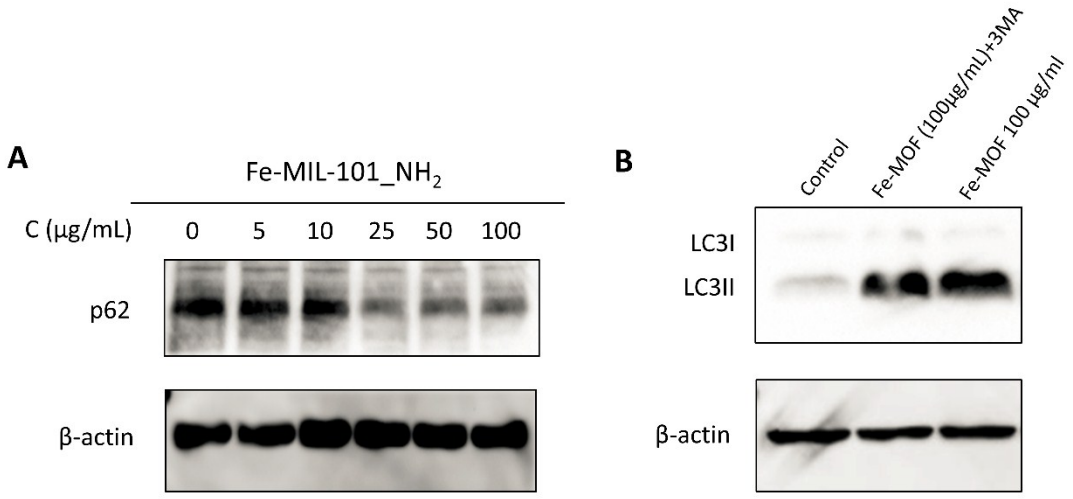

Figure S1. Western blot results of expression level of p62 in MEFs treated with Fe-MIL-101_NH_2 at different concentration (A); Autophagy level of MEFs treated with 100 μg/mL Fe-MIL-101_NH_2 (Fe-MOF) with and without 5 mM 3-MA (B).

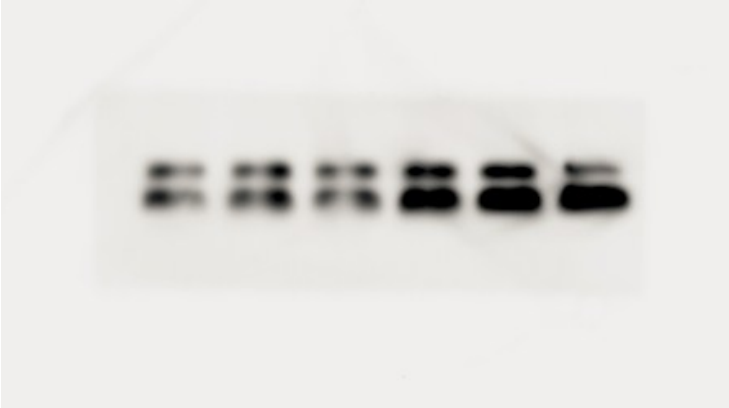

Figure S2. Full-length western blotting assay of LC3 of MEFs treated with Fe-MIL-101_NH_2 corresponding to Figure 4.

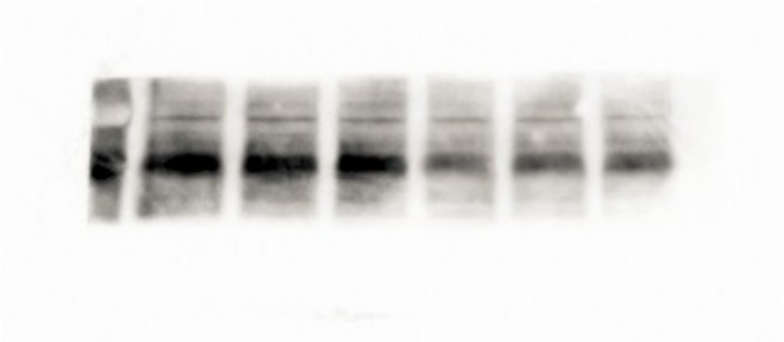

Figure S3. Full-length western blotting assay of p62 of MEFs treated with Fe-MIL-101_NH_2 corresponding to Figure S1.

Figure S4. Full-length western blotting assay of mTOR of MEFs treated with Fe-MIL-101_NH_2 corresponding to Figure 6-mTOR.

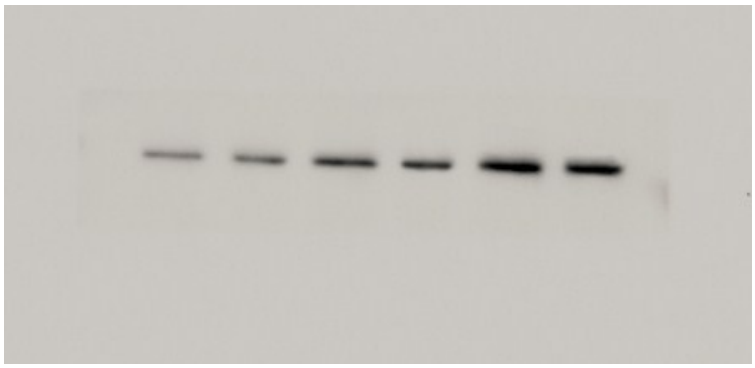

Figure S5. Full-length western blotting assay of Becline1 of MEFs treated with Fe-MIL-101_NH_2 corresponding to Figure 6-Becline1.

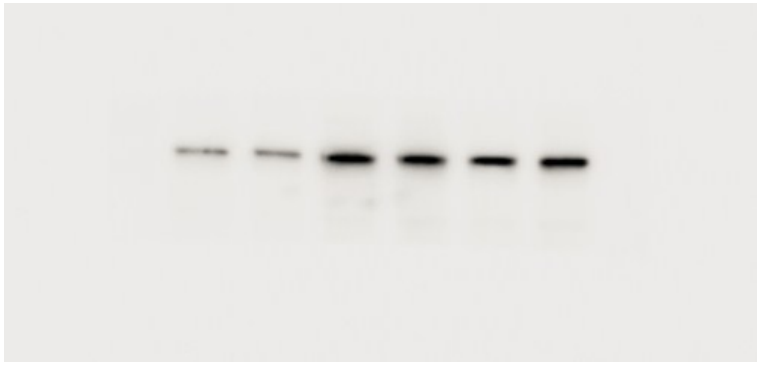

Figure S6. Full-length western blotting assay of Atg5 of MEFs treated with Fe-MIL-101_NH_2 corresponding to Figure 6-Atg5.

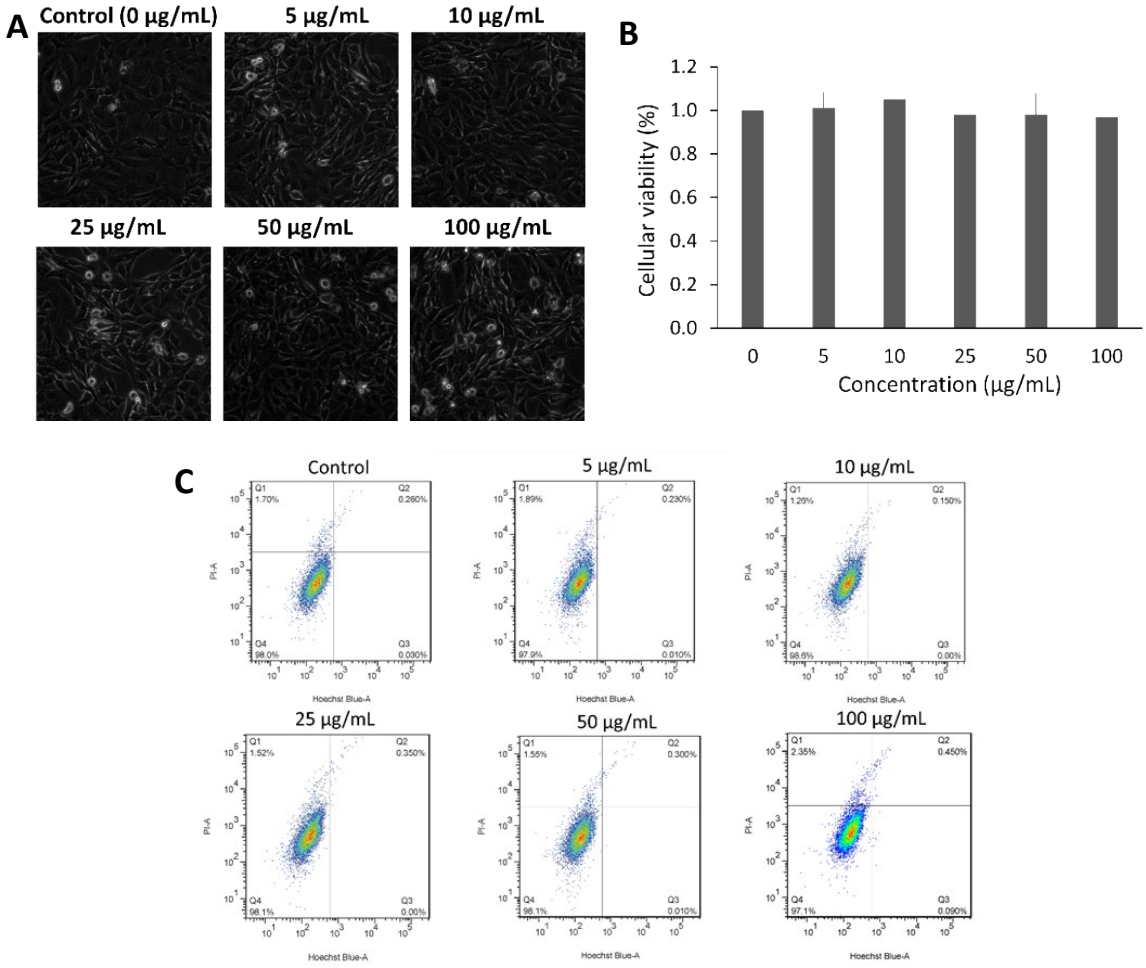

Figure S7. Morphology characteristics (A), cellular viability (B) and apoptosis (C) of MEFs treated with Cu-BTC at different concentration for 24 hours.

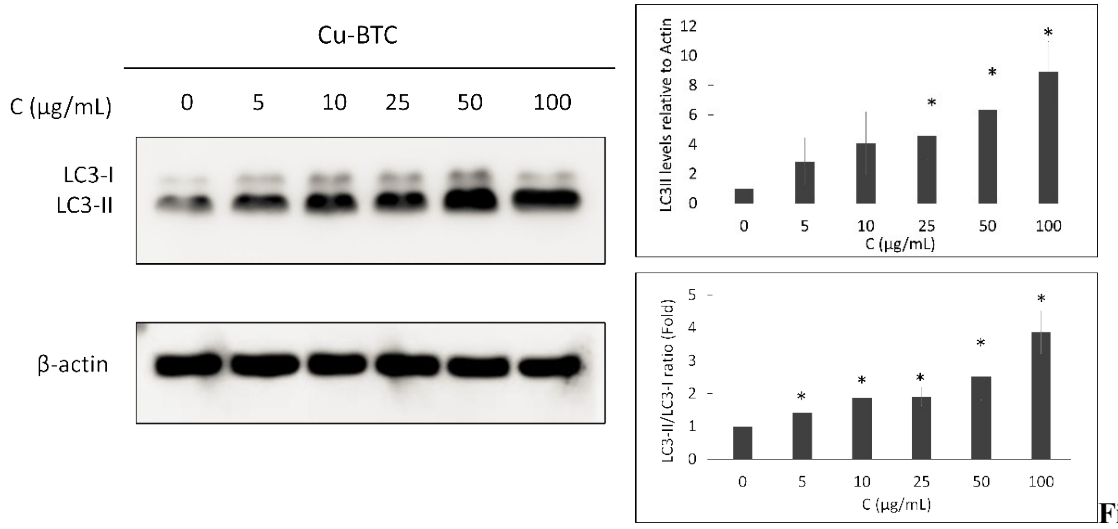

Figure S8. Autophagy induction in MEFs after exposure to Cu-BTC at different concentration for 24 hours. *$p < 0.05$ compared with control group. Data are expressed as mean ± S.D. n = 3.

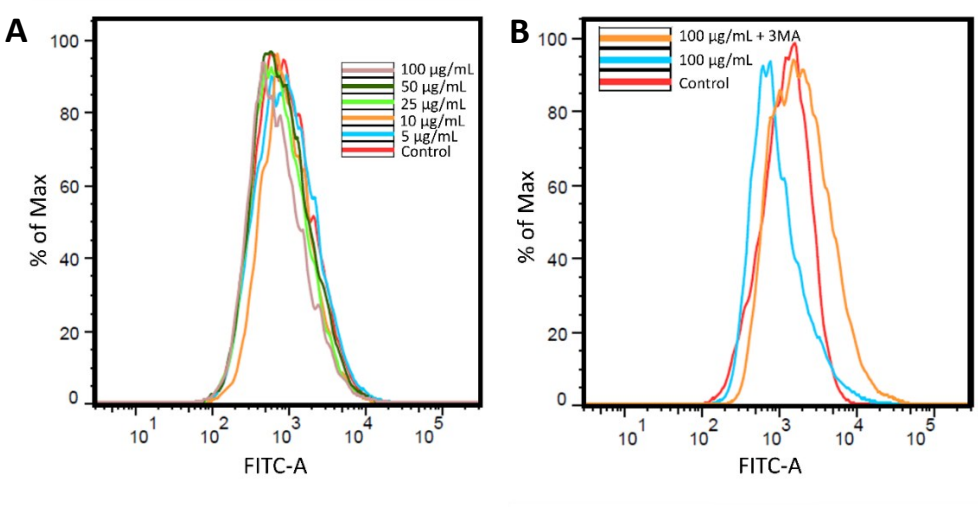

Figure S9. Detection of ROS generation by flow cytometry. MEFs were treated with Cu-BTC at different concentration for 24 hours (A); MEFs were treated with 100 μg/mL Cu-BTC with and without 5mM 3-MA (B) for 24 hours.

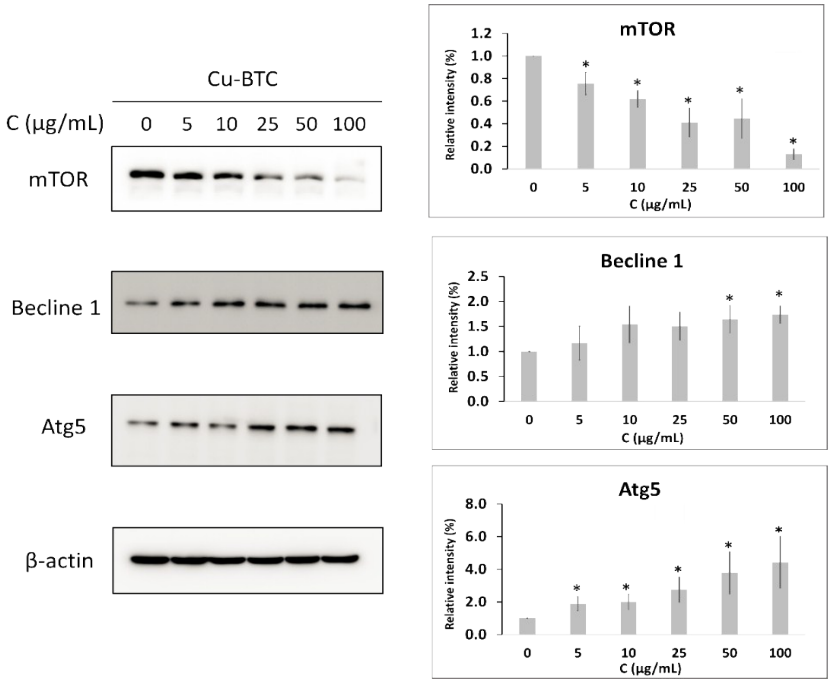

Figure S10. The expression of mTOR, Beclin1 and Atg5 of MEFs after exposure to Cu-BTC at different concentration for 24 hours. *$p < 0.05$ compared with control group. Data are expressed as mean ± S.D. n = 3.