Supplementary



Figure S1. Structures of PPOA derivatives, (**A**) acetamide *A*, (**B**) acetamide *B*, (**C**) acetamide *C*, and (**D**) acetamide *D*.



Figure S2. Cell viability assay. MTT assay was performed to determine cell viability using the indicated concentrations of PPOA-*N*-Ac-2-Cl for the indicated durations of time with M-CSF (30 ng/mL).



Figure S3. Quantification of the ratios of band intensity of p-ERK, p-JNK, p-P38, p-AKT, p-P65 and p-I κ B α relative to their total forms that total ERK, JNK, P38, AKT, P65 and I κ B α . Black bars indicate control, without PPOA-*N*-Ac-2-Cl treatment, and white bars indicate PPOA-*N*-Ac-2-Cl-treated group. * p < 0.05 versus the vehicle-treated control group.



Figure S4. Quantification of the ratios of band intensity of TRAF6, c-src, Calcineurin A, Calmodulin, c-fos, NFATc1 and CtsK relative to β -actin. Black bars indicate control, without PPOA-*N*-Ac-2-Cl treatment, and white bars indicate PPOA-*N*-Ac-2-Cl-treated group. * p < 0.05 versus the vehicle-treated control group.

Gene	Primer sequence (5'→3')	
Cathepsin K	Forward	GGACGCAGCGATGCTAACTAA
	Reverse	CAGAGAGAAGGGAAGTAGAGTTGTCACT
Acp5	Forward	CAGCTGTCCTGGCTCAAAA
	Reverse	ACATAGCCCACACCGTTCTC
DC-STAMP	Forward	CGCACGATGCTTCATTCTTC
	Reverse	CAGTGCCAGCCGCAATC
GAPDH	Forward	TGTGTCCGTCGTGGATCTGA
	Reverse	GATGCCTGCTTCACCACCTT
MMP9	Forward	CTGGACAGCCAGACACTAAAG
	Reverse	CTCGCGGCAAGTCTTCAGAG
NFATc1	Forward	ACCACCTTTCCGCAACCA
	Reverse	GGTACTGGCTTCTCTTCCGTTTC
ATP6v0d2	Forward	GTGAGACCTTGGAAGACCTGAAA
	Reverse	TCCTCATCTCCGTGTCAATTTTG
c-fos	Forward	CGAAGGGAACGGAATAAGATG
	Reverse	GCTGCCAAAATAAACTCCAG
TRAF6	Forward	TCGGACCCTGGAGGACAA
	Reverse	CCAAACTTGCCAATCTTCCAA

Table S1. Primers used in the study.