Supporting Information

Lysosomal re-acidification ameliorates vinyl carbamate-induced toxicity and disruption on lysosomal pH

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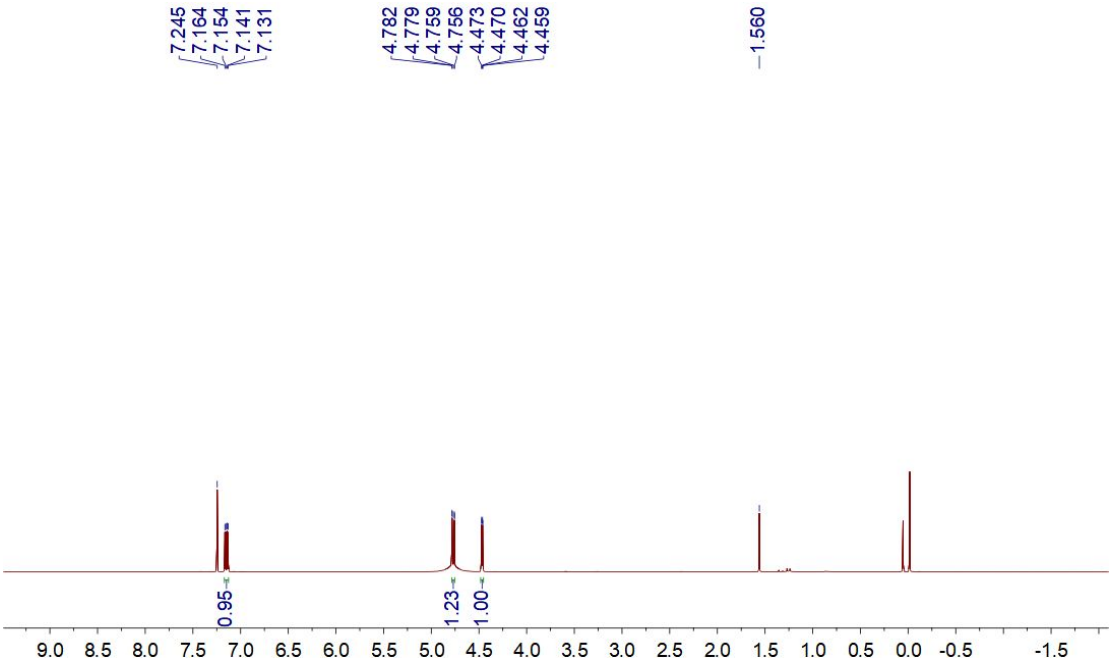
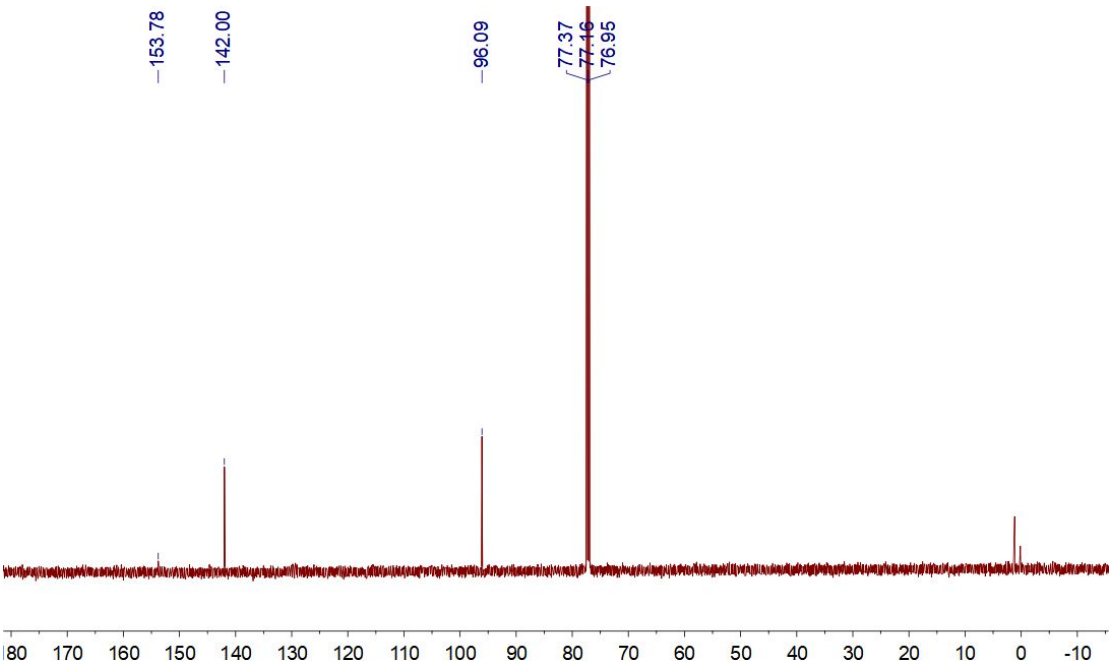
Fig. S1

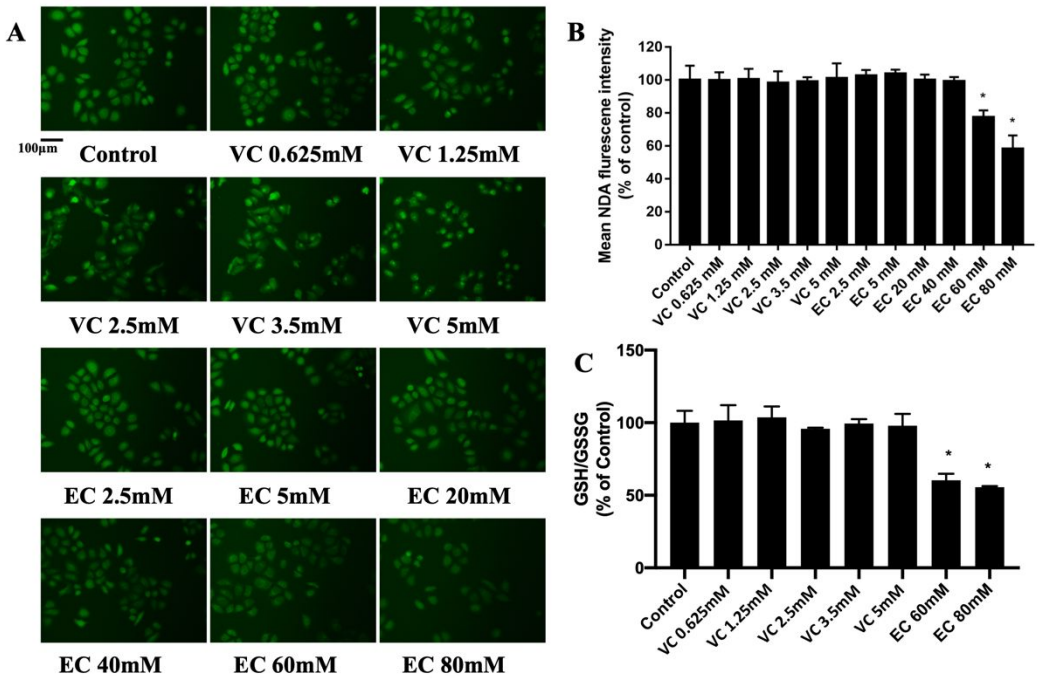


(a) ^{1}H NMR for Vinyl Carbamate



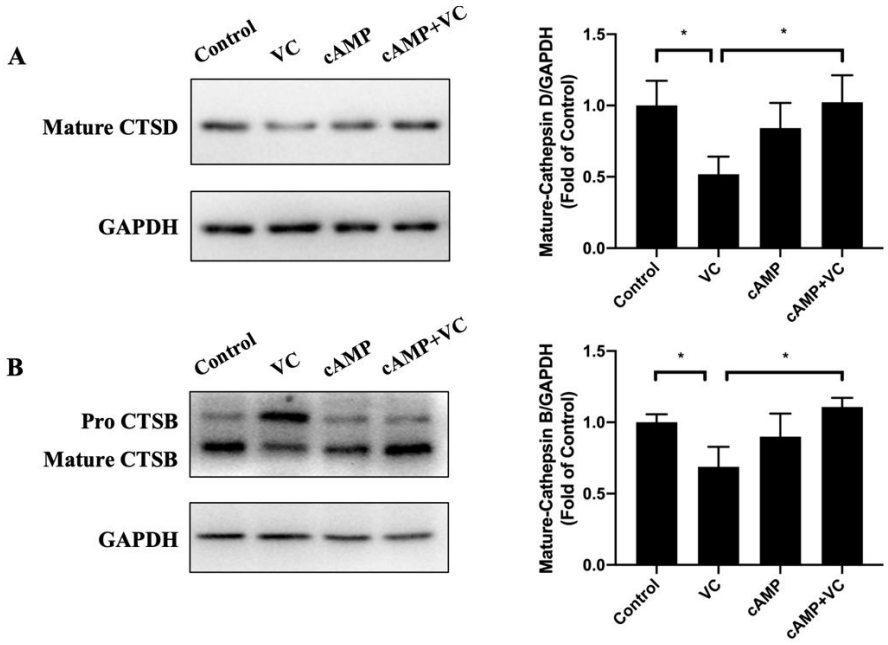
(b) ^{13}C NMR for Vinyl Carbamate

Fig. S2



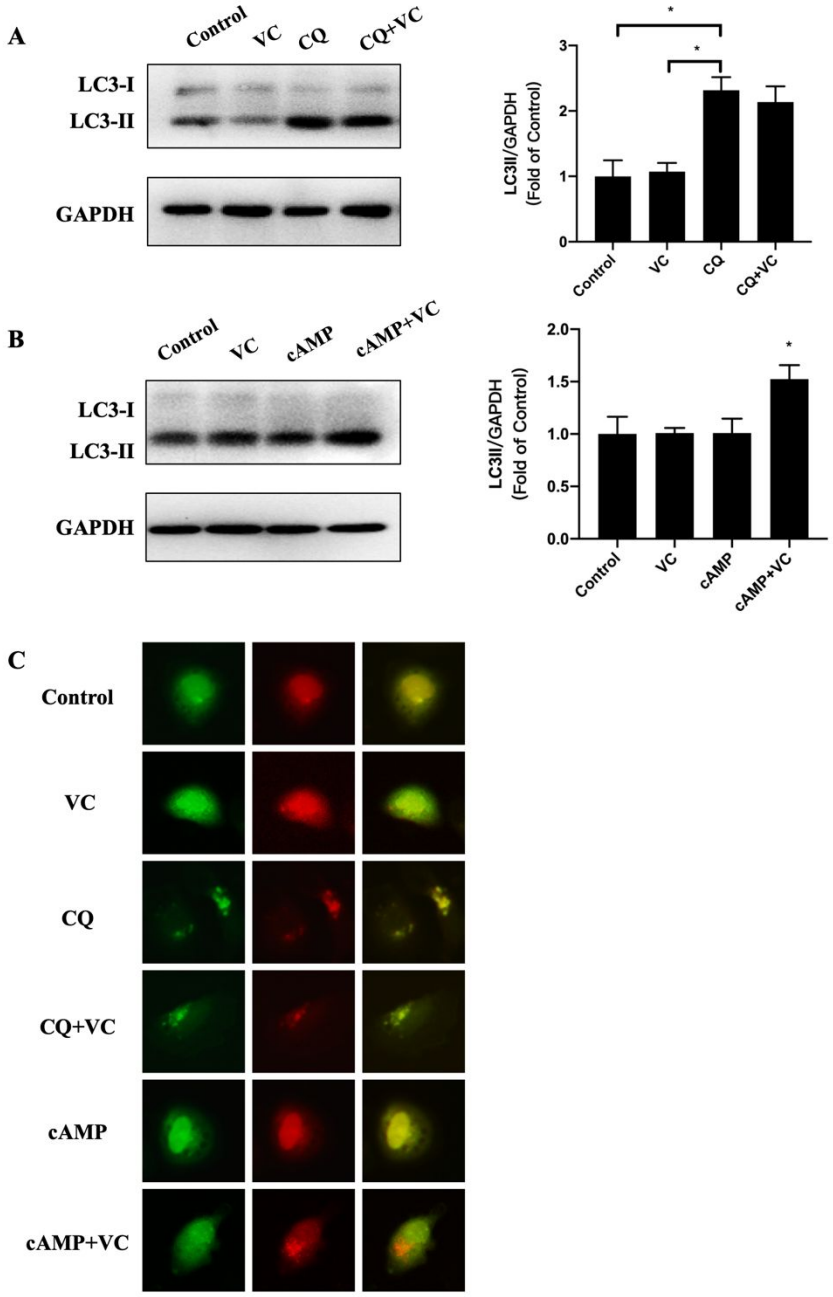
L02 cells were treated with different concentrations of VC or EC for 24 h.(A) Effect of VC treatment on intracellular GSH level. (B) The quantitative data of panel (A) were calculated by ImageProPlus and expressed as mean NDA fluorescence intensity. (C) GSH/GSSG ratio. EC, ethyl carbamate; VC, vinyl carbamate; GSH, glutathione; NDA, naphthalene-2, 3-dicarboxaldehyde. *p<0.05.

Fig. S3



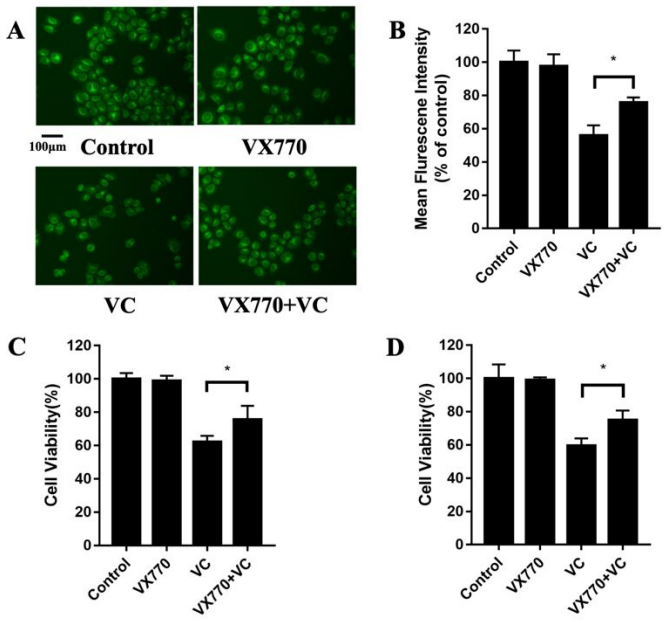
After incubation with 4 mM cAMP for 1 h, L02 cells were treated with 2.5 mM VC for 24 h. (A) and (C) Immunoblot analysis of CTSD expression. (B) and (D) Immunoblot analysis of CTSB expression. VC, vinyl carbamate, cAMP, cyclic adenosine monophosphate; CTSB, cathepsin B; CTSD, cathepsin D. *p<0.05.

Fig. S4



After incubation with 4 mM cAMP or 20 μM CQ for 1 h, L02 cells were treated with 2.5 mM VC for 24 h. (A) Immunoblot analysis of LC3 expression. (B) Immunoblot analysis of LC3 expression. (C) Morphology of L02 cells transfected with GFP-RFP-LC3. VC, vinyl carbamate, CQ, chloroquine; cAMP, cyclic adenosine monophosphate. *p<0.05.

Fig. S5



L02 cells were incubated with 5 μM VX770 for 1 h, and then treated with 2.5 mM VC for 24 h. (A) L02 cells staining with LysoSensor Green. (B) The quantitative data of panel (A) were calculated by ImageProPlus and expressed as mean fluorescence intensity. (C, D) The influence of VX770 on cell viability under VC exposure tested by MTT and SRB assay. VC, vinyl carbamate CFTR, cystic fibrosis transmembrane conductance regulator; CFTRi, CFTR inhibitor 172. *p<0.05.