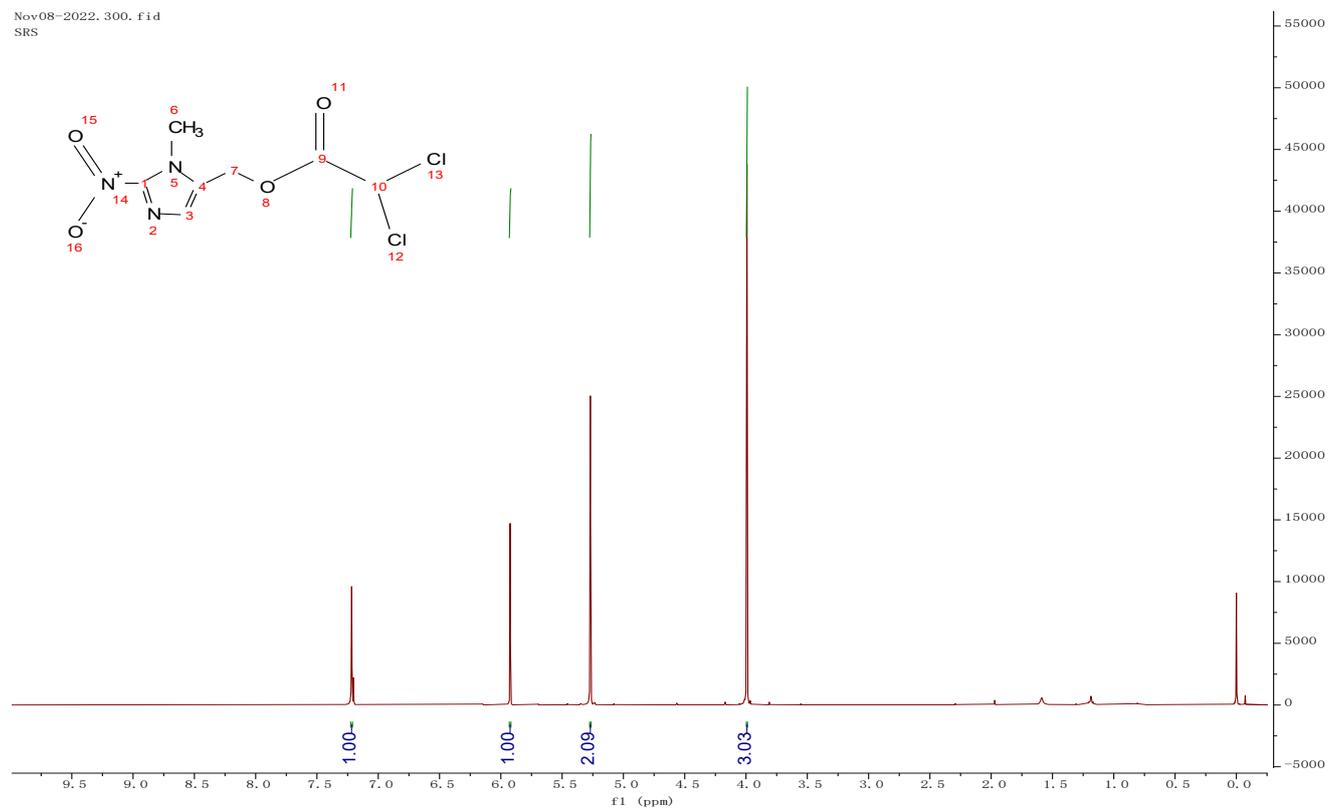


## NMR Spectra

Nov08-2022, 300, fid  
SRS



**Fig. S1** <sup>1</sup>H NMR spectrum of NIM-DCA.

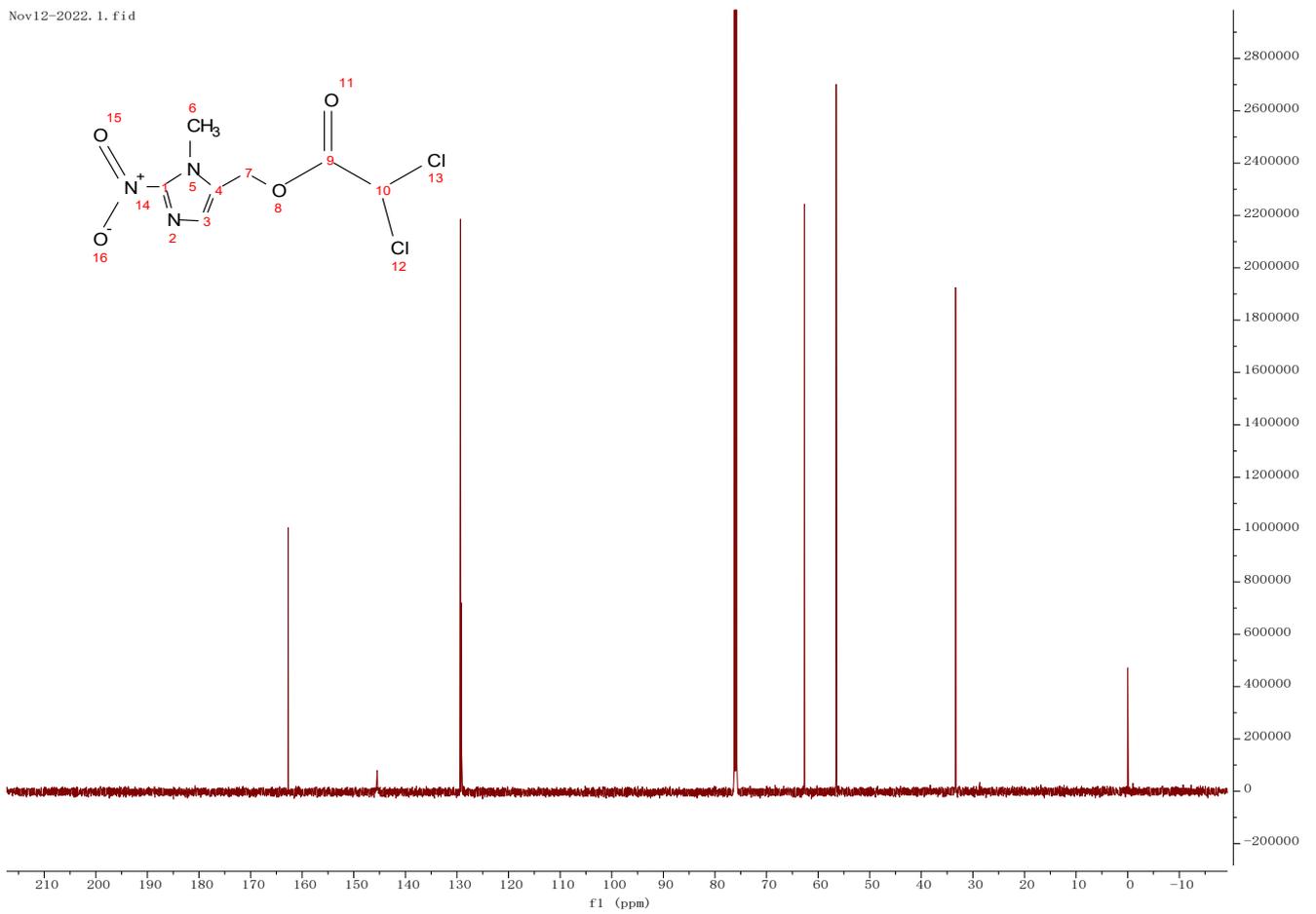
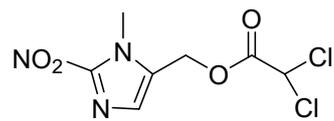
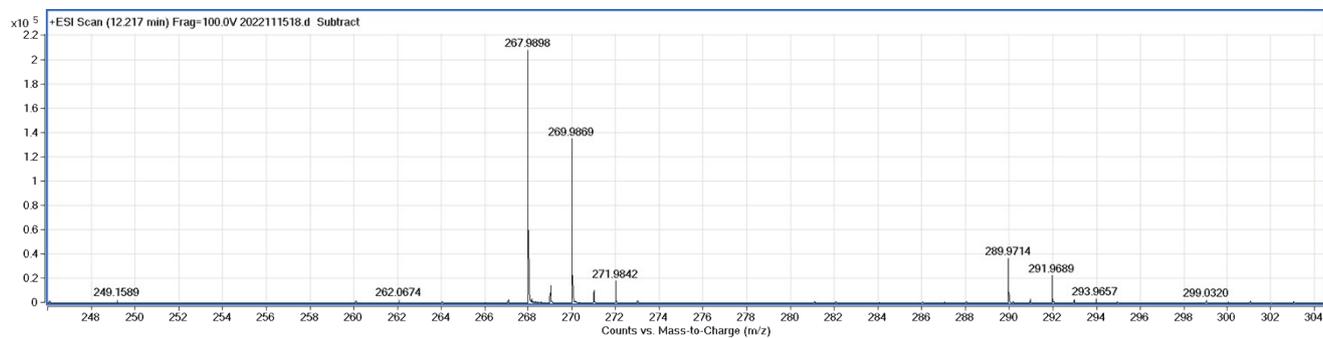


Fig. S2 <sup>13</sup>C NMR spectrum of NIM-DCA.

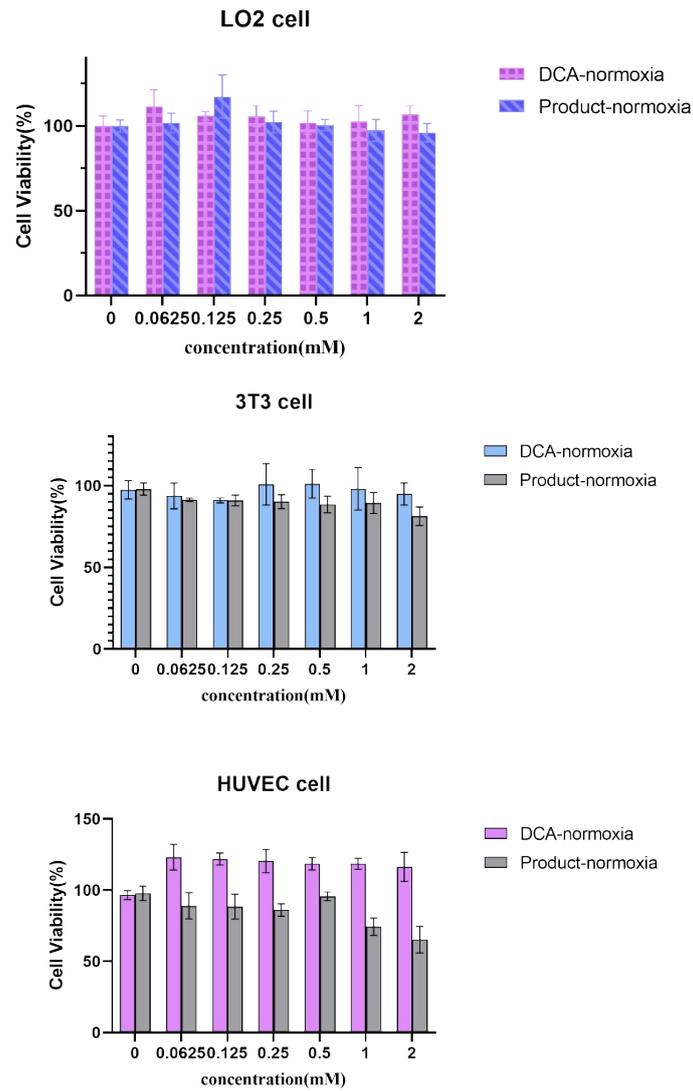
## HRMS of Key Intermediates



Chemical Formula:  $C_7H_7Cl_2N_3O_4$



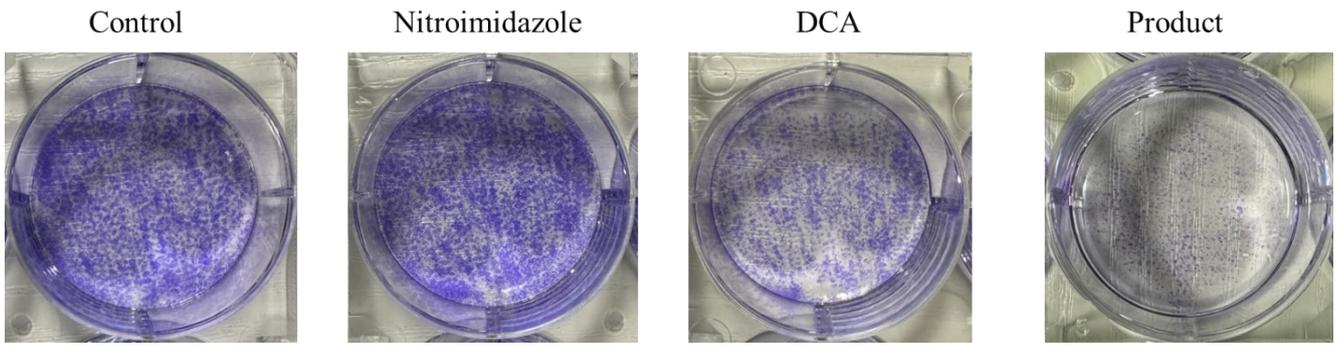
**Fig. S3** HRMS of compound



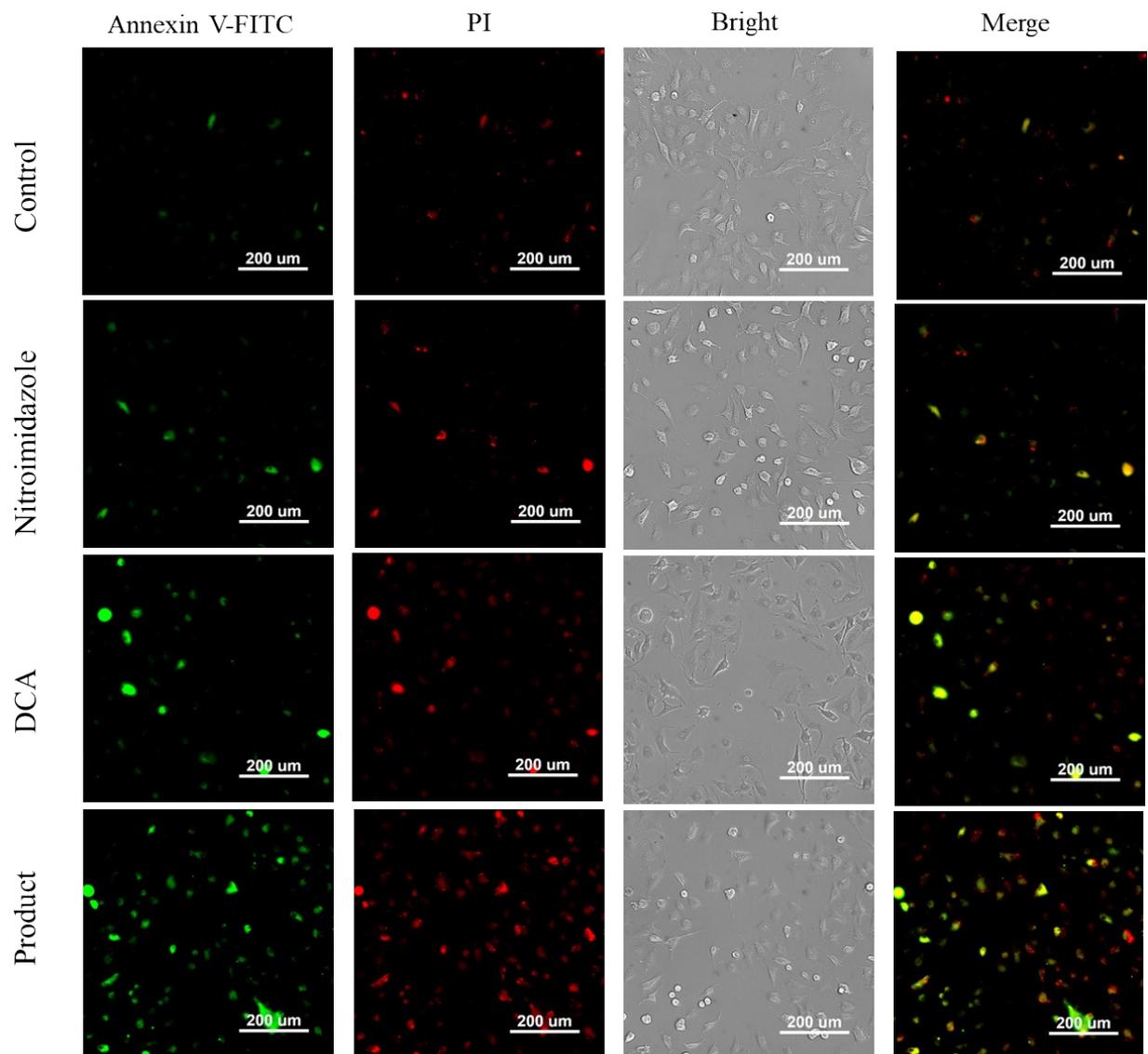
**Fig. S4** Cell viability of LO2、NIH/3T3 and HUVEC fibroblast cells after incubation with various concentrations of DCA or NIM-DCA (product) under normoxia conditions for 24 hours.

**Table S1. IC<sub>50</sub> of NIM-DCA on tumor cells at 24h (mM)**

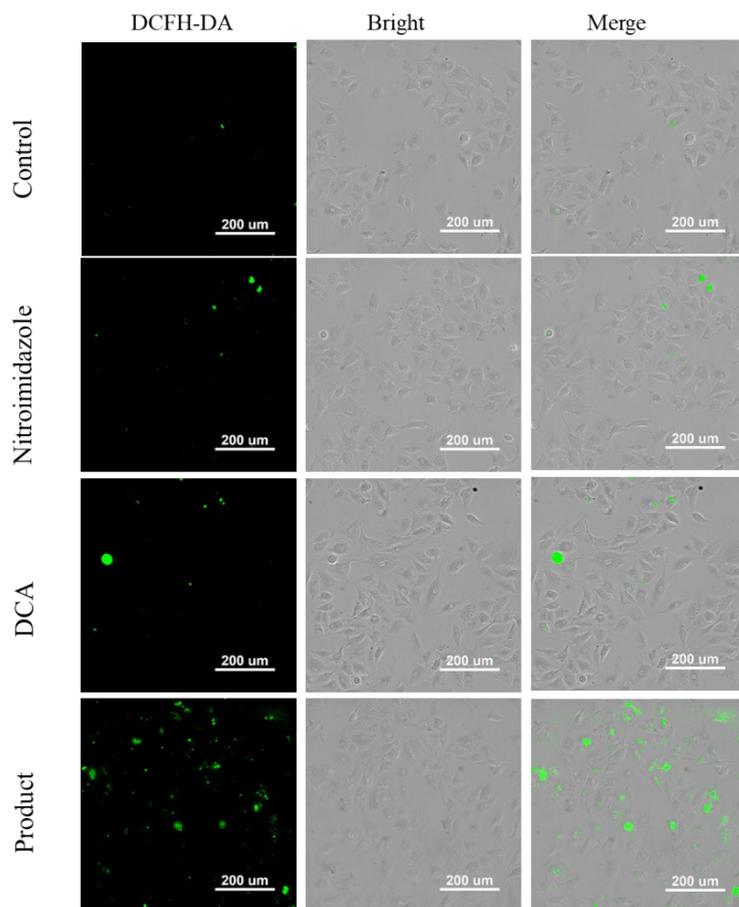
Cell lines	Hela	MCF-7	HepG-2	4T1	A549	NCI-H1299	Sy5y
IC <sub>50</sub>	0.9778	0.5441	0.2812	0.3992	0.214	0.6295	0.758



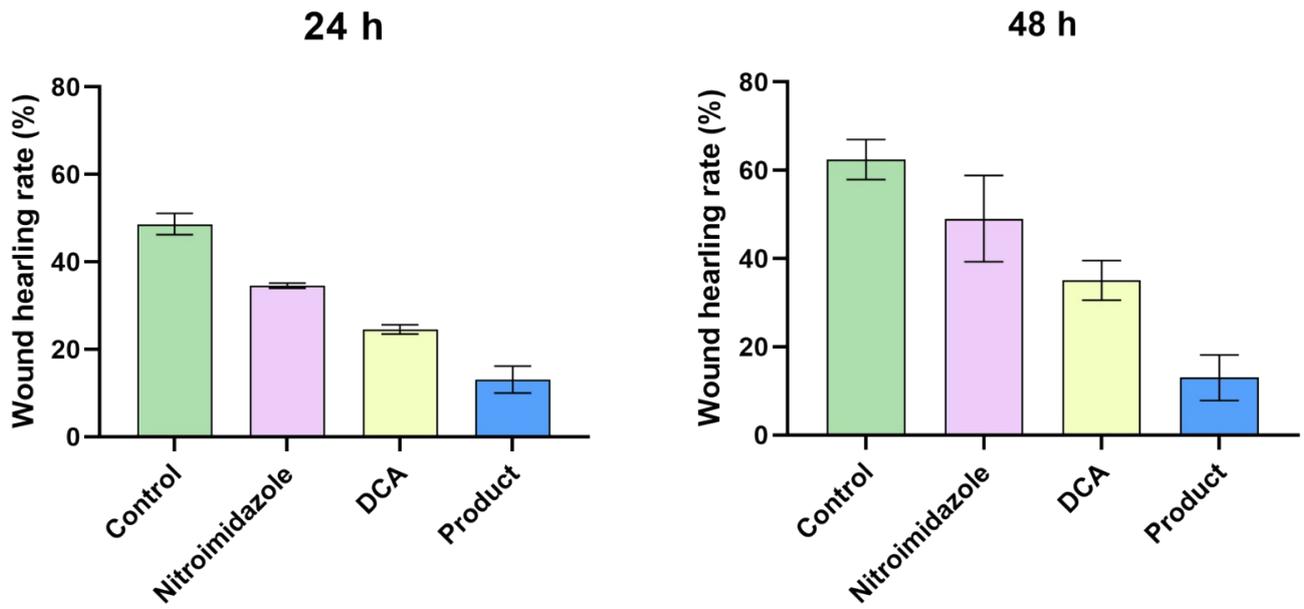
**Figure S5.** Colony formation assay images of A549 cells with the treatment of Control, Nitroimidazole (HM-NIM), DCA and Product (NIM-DCA) under hypoxia conditions.



**Figure S6.** Confocal fluorescence images of A549 cells with the treatment of Control (blank), Nitroimidazole (HM-NIM), DCA and Product (NIM-DCA) under hypoxia conditions.



**Figure S7.** ROS production of A549 cells under hypoxic conditions when incubated with Control (blank), Nitroimidazole (**HM-NIM**), DCA and Product (**NIM-DCA**). Fluorescent probe used is DCFH-DA.



**Figure S8.** In vitro wound healing assay of with Control (blank), Nitroimidazole (**HM-NIM**), DCA and Product (**NIM-DCA**) using A549 cells. The wound healing rates of each group under hypoxia condition after 24 h and 48 h treatment.