Antiproliferative evaluation of novel 4-imidazolidinone derivatives as anticancer agent which triggers ROS-dependent apoptosis in colorectal cancer cell

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Table S1. The inhibition rate of compounds 9 in tumor cells.

Compound 9					Inhibition rate (%)			
Compound	R^1	R^2	R^3	Ar	HCT116	Hela	Hep3B	U87
9a	4-Br	Cyclohexyl	Bn	Ph	38.9±1.9	54.6±5	15.1±11.3	15.4±4.4
9b	4-OMe	Cyclohexyl	Bn	Ph	16.7±5.5	4.6±10.8	1±6.4	NA
9c	4-F	Cyclohexyl	Bn	Ph	30.1±5.1	46.7±5.1	NA	8.3±5
9d	3-Cl	Cyclohexyl	Bn	Ph	29.4±3.8	61.5±4.4	19.4±5.6	17.5±8.2
9e	H	Cyclohexyl	Bn	Ph	34.8±3.6	22±7	NA	NA
9f	4-Br	Cyclopentyl	Bn	Ph	51.9±3.4	51.2±2.8	NA	3.8±3.2
9g	3,4-di-OMe	Cyclopentyl	Bn	Furyl	23.7±2.4	NA	1.8±6	5.6±15.5
9h	H	Cyclopentyl	Bn	4-Br-C_6H_4	13.3±2.9	12.5±3.5	NA	5.8±6.3
9i	4-Cl	Cyclopentyl	3-F-Bn	4-OMe-C_6H_4	33.6±2.9	NA	NA	NA
9j	3-Br	Cyclopentyl	Bn	4-OMe-C_6H_4	30.5±5	7.1±8.9	NA	NA
9k	4-Br	Cyclobutyl	Bn	Ph	21.4±3.7	NA	NA	NA
9l	4-Br	Acyclic Propyl	Bn	Ph	24.1±4.9	72±3.7	NA	39.3±3
9m	4-Br	Acyclic Propyl	PhC_2H_4	Ph	30.4±3.5	49.2±7.1	NA	20.3±13.2
9n	3-Cl-4-F	Acyclic Propyl	Bn	Ph	27.7±11.2	49±2.7	NA	19.2±5.8
9o	4-Br	Acyclic Propyl	Cy	Ph	25.1±8.9	36.7±8.5	NA	26.1±3.9
9p	4-F	Acyclic Propyl	Bn	Piperonylic	29.1±6.5	31.8±6.5	NA	24.5±5.6
9q	3,4-di-OMe	Acyclic Propyl	Bn	Ph	35.9±4.6	21.7±7.1	NA	NA
9r	4-Br	Acyclic Propyl	Bn	Furyl	69.3±3.1	84.1±2.1	57.7±2.4	87.5±1.5
9s	4-OMe	Acyclic Propyl	Cy	4-Br-C_6H_4	37.1±4.4	9.2±6.1	NA	8.9±10.9

The inhibition rate is described as "NA" if the value is below 0.

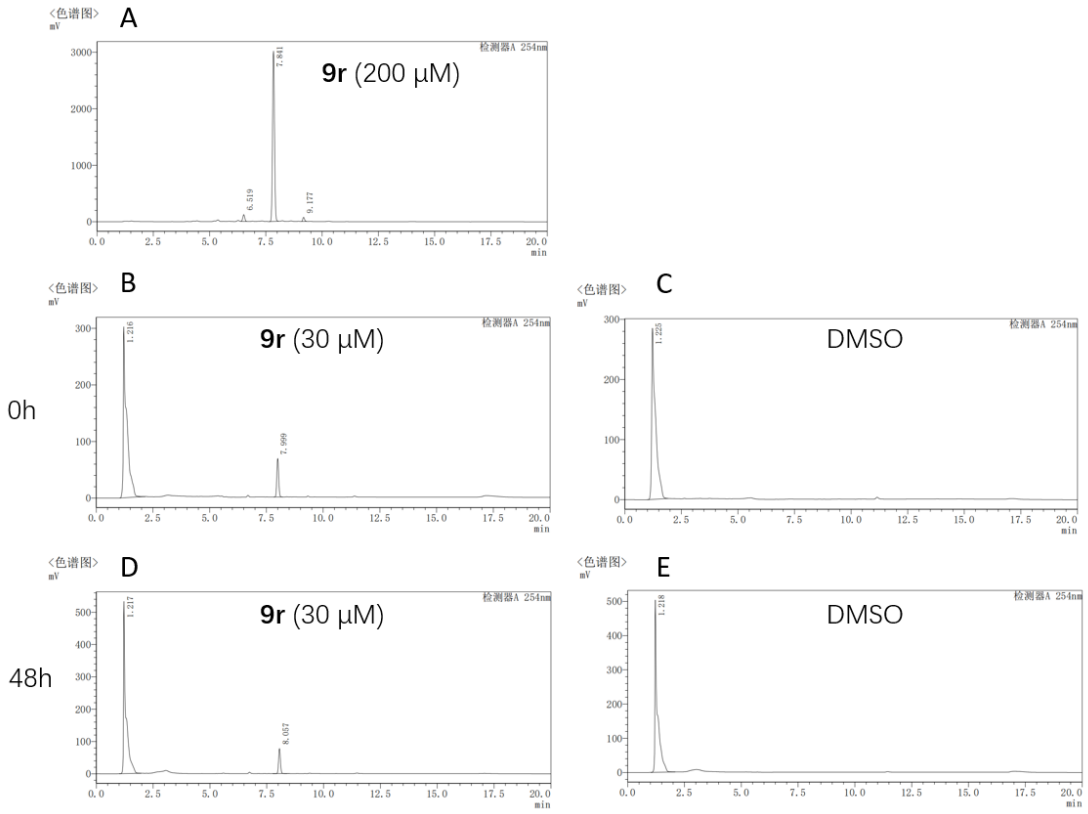

Figure S1. HPLC chromatograms of standards of compound **9r** (200 μM in methanol) (A), 30 μM compound **9r** in medium containing 10% FBS (B), DMSO in medium containing 10% FBS (C), 30 μM compound **9r** in medium containing 10% FBS after 48 hours of incubation (D), DMSO in medium containing 10% FBS after 48 hours of incubation (E). HPLC: High performance liquid chromatography, DMSO: Dimethyl sulfoxide, FBS: Fetal bovine serum.

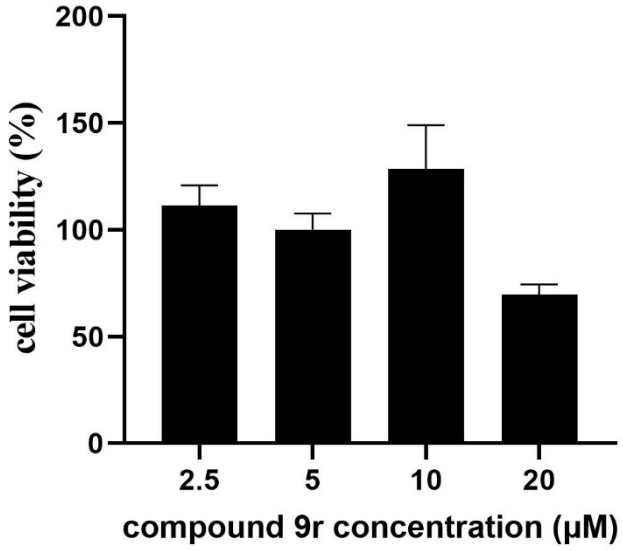

Figure S2. FHC cell viability after compound **9r** treated for 72 hours.