Supporting Information

Antitumor Agents 286. Design, Synthesis and Structure-Activity Relationship of 3'*R*,4'*R*-Disubstituted-2',2'-dimethyldihydropyrano[2,3-*f*]chromone (DSP) Analogs as Potent Chemosensitizers to Overcome Multidrug Resistance

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Content

HPLC analysis of the final compounds.

Compound purities were determined by HPLC.

System: Shimadzu LC-20AT prominence liquid chromatography

Detector: Shimadzu SPD-M20A at 254 nm

Column: Alltima 2.1mm x 100 mm C18 3u

Compounds	Flow rate (mL/min)	CH_3CN%	Purity	Rentention time (min)
5	0.2	70	100.0	12.75
6	0.2	80	96.8	4.27
7	0.2	70	96.1	8.39
8	0.2	70	99.8	24.37
9	0.2	50	97.3	11.66
10	0.2	60	99.6	15.18
11	0.2	80	100.0	11.28
12	0.2	80	99.9	18.38
13	0.2	80	96.7	11.85
14	0.2	80	96.1	6.70
15	0.2	80	99.1	4.51
16	0.2	70	100.0	9.84
17	0.2	70	95.2	11.28
18	0.2	70	96.0	4.07
19	0.2	75	99.5	19.00
20	0.2	70	99.8	19.66
21	0.2	70	98.8	17.13

22	0.2	70	99.0	4.36
23	0.2	70	97.8	11.25
24	0.2	70	99.9	11.85
25	0.2	70	100.0	7.32
26	0.2	70	99.9	22.15
27	0.2	70	99.3	4.97
28	0.2	70	100	9.98

Statistic analysis for cell assays

Compound	GI_{50} of VCR + (1 μg/mL) indicated compound (μg/mL)	Compound	GI_{50} of VCR +(1 μg/mL) indicated compound (μg/mL)
5	>0.2	**17**	0.03 ± 0.005
6	>0.2	**18**	0.071 ± 0.014
7	0.087 ± 0.016	**19**	0.023 ± 0.004
8	>0.2	**20**	0.011 ± 0.003
9	0.09 ± 0.012	**21**	0.0085 ± 0.001
10	0.0152 ± 0.004	**22**	0.060 ± 0.008
11	0.007 ± 0.0003	**23**	>0.2
12	0.12 ± 0.042	**24**	>0.2
13	0.15 ± 0.04	**25**	0.021 ±0.01
14	0.0095 ± 0.003	**26**	>0.2
15	0.013 ± 0.002	**27**	0.098 ± 0.001
16	0.012 ±0.004	**28**	0.11 ± 0.28
		Verapamil	0.017 ±0.004

Mean GI_{50} (μg/mL) ± SD