

Supplementary Table S3. Results from Screening a Library of 119 Anticancer Drugs and 20 Controls

Rank	Compound name	IC ₅₀ (nM)	Calcein AM-Pos cells (10 μM)	
			Avg	SD
	DMSO control, 0.1% in media (n=50)		1000	79
Effect shown at all tested concentrations				
1	Trametinib	<1	171	3
2	Paclitaxel	<1	190	99
3	Docetaxel	<1	289	56
4	Cabazitaxel	<1	327	9
5	Dactinomycin	<1	328	41
6	Vincristine sulfate	<1	715	65
7	Vinblastine sulfate	<1	759	25
Concentration Response with 4-parameter Fit				
8	Ixabepilone	0.198	177	88
9	Enzalutamide	0.34	181	15
10	Romidepsin	0.35	431	1
11	Topotecan hydrochloride	2.15	147	33
12	Carfilzomib	2.15	620	14
13	Daunorubicin hydrochloride	2.72	249	15
14	Bortezomib	2.82	551	33
15	Imatinib	4.19	40	25
16	Omacetaxine mepesuccinate	5.69	581	1
17	Doxorubicin hydrochloride	6.53	209	77
18	Mitomycin	6.76	150	12
19	Gemcitabine hydrochloride	9.31	96	21
20	Clofarabine	10.14	128	23
21	Decitabine	10.4	646	16
22	Epirubicin hydrochloride	11.3	141	21
23	Vinorelbine tartrate	13.1	631	53
24	Plicamycin	13.7	350	1
25	Teniposide	16.6	165	11
26	Mitoxantrone	18.3	135	25
27	Methotrexate	34.2	313	8
28	Floxuridine	42.5	229	25

(continued)

Supplementary Table S3. (Continued)

Rank	Compound name	IC ₅₀ (nM)	Calcein AM-Pos cells (10 μM)	
			Avg	SD
29	Cytarabine hydrochloride	46.9	120	17
30	Vorinostat	50.6	311	111
31	Belinostat	51.9	435	20
32	Bleomycin sulfate	79.6	101	75
33	Valrubicin	84.6	4	1
34	Cladribine	89.3	68	50
35	Sorafenib	110	324	243
36	Axitinib	162	277	3
37	Triethylenemelamine	179	148	25
38	Etoposide	190	132	28
39	Pemetrexed disodium salt	222	419	18
40	Crizotinib	244	183	38
41	Oxaliplatin	253	180	4
42	Irinotecan hydrochloride	388	61	72
43	Ponatinib	418	133	30
44	Fluorouracil	446	282	17
45	Fludarabine phosphate	992	171	99
Effect only at highest concentration				
46	Pazopanib hydrochloride	>1,000	110	13
47	Ceritinib	>1,000	118	123
48	Mechlorethamine hydrochloride	>1,000	126	12
49	Sunitinib	>1,000	145	121
50	Bosutinib	>1,000	147	41
51	Melphalan hydrochloride	>1,000	200	8
52	Cabozantinib	>1,000	216	40
53	Thiotepa	>1,000	217	18
54	Uracil mustard	>1,000	241	25
55	Thioguanine	>1,000	245	45
56	Vandetanib	>1,000	248	137
57	Pipobroman	>1,000	280	33
58	Azacitidine	>1,000	285	251
59	Afatinib	>1,000	291	83

(continued)

Supplementary Table S3. (Continued)

Rank	Compound name	IC ₅₀ (nM)	Calcein AM-Pos cells (10 μM)	
			Avg	SD
60	Mercaptopurine	>1,000	356	9
61	Dabrafenib mesylate	>1,000	363	11
62	Olaparib	>1,000	384	62
63	Chlorambucil	>1,000	459	245
64	Dacarbazine	>1,000	472	262
65	Temsirolimus	>1,000	483	117
66	Dexrazoxane	>1,000	490	25
67	Erlotinib hydrochloride	>1,000	528	243
68	Mitotane	>1,000	459	294
69	Pralatrexate	>1,000	583	21
70	Capecitabine	>1,000	584	58
71	Everolimus	>1,000	604	155
72	Nilotinib	>1,000	644	72
73	Carboplatin	>1,000	656	25
74	Streptozocin	>1,000	742	334
No significant change (<3 SD) from DMSO control				
75	Sirolimus	No effect	769.5*	37
76	Tretinoin	No effect	780*	58
77	Busulfan	No effect	788*	17
78	Regorafenib	No effect	808.5*	32
79	Exemestane	No effect	852	9
80	Plerixafor	No effect	870	22
81	Idelalisib	No effect	918	5
82	Lapatinib	No effect	937	17
83	Zoledronic acid	No effect	942	19
84	Idarubicin hydrochloride	No effect	968	13
85	Altretamine	No effect	973	38
86	Gefitinib	No effect	974	115
87	Tamoxifen citrate	No effect	980	24
88	Hydroxyurea	No effect	987	4
89	Cisplatin	No effect	991	18
90	Megestrol acetate	No effect	992	20

(continued)

Supplementary Table S3. (Continued)

Rank	Compound name	IC ₅₀ (nM)	Calcein AM-Pos cells (10 μM)	
			Avg	SD
91	Aminolevulinic acid hydrochloride	No effect	1,004	26
92	Arsenic trioxide	No effect	1,005	53
93	Celecoxib	No effect	1,013	4
94	Lomustine	No effect	1,020	87
95	Pomalidomide	No effect	1,022	25
96	Carmustine	No effect	1,023	33
97	Ifosfamide	No effect	1,031	14
98	Bendamustine hydrochloride	No effect	1,036	113
99	Lenalidomide	No effect	1,041	82
100	Temozolomide	No effect	1,044	13
101	Abiraterone	No effect	1,044	18
102	Cyclophosphamide	No effect	1,047	2
103	Vemurafenib	No effect	1,049	91
104	Fulvestrant	No effect	1,054	4
105	Methoxsalen	No effect	1,055	49
106	Estramustine phosphate sodium	No effect	1,057	15
107	Raloxifene	No effect	1,061	23
108	Allopurinol	No effect	1,067	21
109	Thalidomide	No effect	1,073	42
110	Amifostine	No effect	1,078	58
111	Ibrutinib	No effect	1,089	
112	Letrozole	No effect	1,095	25
113	Nelarabine	No effect	1,098	8
114	Dasatinib	No effect	1,107	37
115	Procarbazine hydrochloride	No effect	1,121	4
116	Pentostatin	No effect	1,136	82
117	Anastrozole	No effect	1,173	58
118	Vismodegib	No effect	1,185	21
119	Imiquimod	No effect	1,290	86
120	None	No effect	930	55

*>2 SD compound effects evaluated based on number of calcein AM-positive cells in spheroids. Seventy-four compounds showed significant decrease (>3 SD from DMSO control) in the number of calcein AM-positive cells at 10 μM concentration. Compounds are ranked by (1)IC₅₀ Value and (2)Number of Calcein AM-Pos Cells (10 μM).