SUPPLEMENTARY INFORMATION

Table S1. Pyran based compounds as potential anticancer agents..

Class	Example	IC_{50}/GI_{50}* (Target Cell line)	Reference
Fused pyrano[3,4-*c*]benzopyran and naphtho pyran derivative	**27**	1.5 (HeLa)	Madda *et al*.[26]
Fused pyrano[3,4-*c*]benzopyran and naphtho pyran derivative	**28**	6.15 (MDA-MB-231)	Madda *et al*.[26]
Fused pyrano[3,4-*c*]benzopyran and naphtho pyran derivative	**29**	4.81 (HeLa) 2.53 (A-549)	Madda *et al*.[26]
Substituted 5-morpholino-7*H*-thieno[3,2-*b*]pyran-7-one	**33**	PI3-Kδ-selective IC_{50} (nM) = 27	Morales *et al.*[27]
Substituted 5-morpholino-7*H*-thieno[3,2-*b*]pyran-7-one	**32**	PI3-K-α-selective IC_{50} (nM) = 34	Morales *et al.*[27]
Substituted 5-morpholino-7*H*-thieno[3,2-*b*]pyran-7-one	**31**	IC_{50} (nM) = 297 (PI3K-α)	Morales *et al.*[27]
4*H*-Pyrano-[2,3-*b*]naphthoquinone	**36**	2.2 (MCF-7)	Magedov *et al.*[34]

4*H*-Pyrano-[2,3-*b*]naphthoquinone	**37**	5.3(HeLa) 3.1 (MCF-7) 6.2 (PC-3)	Magedov *et al.*[34]
Novel (dihydro) pyranonaphthoquinone	**44**	1.5 (KB) 3.6 (HepG2)	Thi *et al*.[35]
Novel (dihydro) pyranonaphthoquinone	**462**	4.1 (KB) 10.7 (HepG2)	Thi *et al*.[35]
Novel (dihydro) pyranonaphthoquinone	**41**	5.6 (KB) 6.7 (HepG2)	Thi *et al*.[35]
Novel (dihydro) pyranonaphthoquinone	**43**	7.5 (KB) 10.2 (HepG2)	Thi *et al*.[35]
4*H*-Chromen-4-one	**45**	0.79 (A549) 0.41 (HL-60)	Switalska *et al*.[61]
4*H*-Chromen-4-one	**46**	0.35 (HL-60)	Switalska *et al*.[61]
2*H*-Chromen-2-yl	**47**	7.3 (MCF-7) 4.9 (HT29) 5.7 (A498)	Murti *et al*.[62]
4',7-Dimethoxyflavanone	**48**	Apoptotic cell population = 34.89%	Choi *et al*.[56]
4*H*-Benzo[*h*]chromen-4-one	**59**	1.93 (MiaPaCa-2) 5.63 (MCF-7)	Kumar *et al*.[63]
4*H*-Benzo[*h*]chromen-4-one	**58**	5.44 (MiaPaCa-2)	Kumar *et al*.[63]

		8.13 (MCF-7)	
4*H*-Benzo[*h*]chromen-4-one	**57**	6.27 (MiaPaCa-2) 10.40 (MCF-7)	Kumar *et al*.[63]
4*H*-Benzo[*h*]chromen-4-one	**56**	11.21 (MiaPaCa-2) 15.43 (MCF-7)	Kumar *et al*.[63]
Novel myricetin derivative	**62**	1.86 (MDA-MB-231) 5.72 (SGC-7901) 6.02 (MGC-803)	Xue *et al*.[83]
Halogenated flavanone	**65**	11.3 (MCF-7) 10.9 (MDA-MB-231) 11.6 (PC-3) 5.7 (HepG2) 12.8 (SK-N-MC)	Safavi *et al*.[67]
Halogenated flavanone	**63**	19.3 (MCF-7) 8.2 (MDA-MB-231) 17.7 (PC-3) 9.8 (HepG2) 10.3 (SK-N-MC)	Safavi *et al*.[67]
Halogenated flavanone	**64**	20.7 (MCF-7) 7.7 (MDA-MB-231) 10.9 (SK-N-MC)	Safavi *et al*.[67]
Halogenated flavanone	**66**	25.8 (MCF-7) 2.9 (MDA-MB-231)	Safavi *et al*.[67]

		12.2 (PC-3) 20.7 (HepG2) 24.0 (SK-N-MC)	
Coumarin-pyrazoline hybrid	**67**	0.01 (HCT-116)	Amin *et al*.[75]
Coumarin-stilbene hybrid	**69**	0.29 (H460) 3.2 (A431) 3.5 (JR8)	Belluti *et al*.[76]
Coumarin-stilbene hybrid	**68**	0.45 (H460), 3.44 (A431), 3.2 (JR8)	Belluti *et al*.[76]
Coumarin-benzimidazole hybrid	**70**	80.51 (HL-60) 72.52 (CCRF-CEM) 70.68 (T-47D) 72.67 (HCT-15)	Paul *et al*.[77]
Coumarin-manosterol hybrid	**72**	2.4 (MCF-7) 3.1 (T47D)	Sashidhara *et al*.[78]
2,4-Diarylpyrano[3,2-*c*]chromen-5(4*H*)-one	**77**	1.4 (HCT-116) 4.3 (MiaPaCa-2)	Kumar *et al*.[104]
2,4-Diarylpyrano[3,2-*c*]chromen-	**73**	9.32 (HCT-116)	Kumar *et al*.[81]

5(4*H*)-one		15.43 (MiaPaCa-2)	
Coumarin and chromene derivative	**85**	5.7 (MCF-7) 12.7 (MDA-MBA -231)	Hussain *et al*.[82]
6-Pyrazolinylcoumarin	**87**	1.88 (CCRF-CEM) 1.92 (MOLT-4)	Garazd *et al*.[84]
Triphenylethylene–coumarin hybrid	**88**	8.51 (MCF-7) 8.38 (A-549) 7.99 (HeLa)	Zhang *et al*.[93]
2-Oxo-2*H*-chromen-8-yl	**99**	3.5 to13.1 Col2, KB, and LNCaP	Lee *et al*.[114] and Laphookhieo *et al*.[115]
3,4,8-Trihydroxy-2-methoxy-1-(3-methylbut-2-enyl)-9*H*-xanthen-9-one	**103**	0.65 (NCI-H187)	Laphookhieo *et al*.[115]
1,3,7-Trihydroxy-2,4-di(3-methylbut-2-enyl)xanthone	**104**	5.2 (NCI-H187)	Laphookhieo *et al*.[115]
1,6-Dihydroxy-7-methoxy-3-methyl-2,8-bis(3-methylbut-2-enyl)-9*H*-xanthen-9-one	**90**	0.92 (BC-1)	Suksamrarn *et al*.[121]
6,9,10-Trihydroxy-3,3-dimethyl-8-(3-methylbut-2-enyl)pyrano[2,3-*c*]xanthen-7(3*H*)-one	**109**	8.1 (A2780)	Cao *et al*.[127]
Xanthen-10-yl-2-methylbut-2-enoic	**112**	0.2 (HepG2)	Jang *et al*.[133]

acid OR (2*Z*)-4-((10*S*,10a*R*)-2,6,8,9,10,10a-hexahydro-7-methoxy-2-methyl-12-(3-methylbut-2-enyl)-2-(4-methylpent-3-enyl)-6,9-dioxopyrano[3,2-*b*]xanthen-10-yl)-2-methylbut-2-enoic acid			
Xanthen-10-yl-2-methylbut-2-enoic acid OR (2*Z*)-4-((10*S*,10a*R*)-2,6,8,9,10,10a-hexahydro-7-methoxy-2-methyl-12-(3-methylbut-2-enyl)-2-(4-methylpent-3-enyl)-6,9-dioxopyrano[3,2-*b*]xanthen-10-yl)-2-methylbut-2-enoic acid	**113**	0.6 (K562)	Jang *et al*.[133]
Rugulosone	**118**	1.3 (BC1) 2.6 (KB) 1.3 (NCI-H187)	Mosoophon *et al*.[135]
Substituted xanthene	**119**	37.9 (Colo-205)	Bhattacharya *et al*.[136]
3,4,5,8-Tetrahydroxy-1,2-bis(3-methylbut-2-enyl)-9*H*-xanthen-9-one	**120**	2.8 (HL-60)	Niu *et al*.[137]
3,4,5,8-Tetrahydroxy-1,2-bis(3-methylbut-2-enyl)-9*H*-xanthen-9-one	**121**	3.1(HL-60)	Niu *et al*.[137]
3,4,5,8-Tetrahydroxy-1,2-bis(3-	**122**	3.4 (HL-60)	Niu *et al*.[137]

methylbut-2-enyl)-9*H*-xanthen-9-one			

*By default, activities are in μM, except in exceptional cases in nM (when specified in brackets)