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	Targets	Compound	Cell Viability (Mean OD 570nm-650nm)	
			Control	5MP1
CDK	CDK2/CyclinA, CDK2/CyclinE, CDC2/CyclinB, CDK5/p35, MAPK	Olomoucine	1.234	0.949
	CDK2/CyclinA, CDK2/CyclinE, CDC2/CyclinB, CDK5/p35	Purvalanol A	1.334	0.985
	CDK1/CyclinB, CDK2/CyclinA, CDK2/CyclinE	Kenpaullone	1.414	1.040
	CDK1/CyclinB, CDK2/CyclinA, VEGF-R2, GSK3	CDK1/2 Inhibitor III	0.443	0.282
	CDK1/CyclinB, CDK5/p53, GSK3	Indirubin-3'-monoxime	1.285	1.096
	CDK1/CyclinB, CDK2/CyclinA, CDK5/p25, GSK3	GSK-3 inhibitor IX	1.418	0.961
Aurora	Aurora-A, Aurora-B, CDK1/CyclinB, CDK2/CyclinA, CDK2/CyclinE	JNJ-7706621	1.301	0.927
	Aurora-A	ENMD-2076	1.160	0.887
	Aurora-A	MLN8237	1.135	0.850
	Aurora-A	Aurora kinase inhibitor III	1.269	0.982

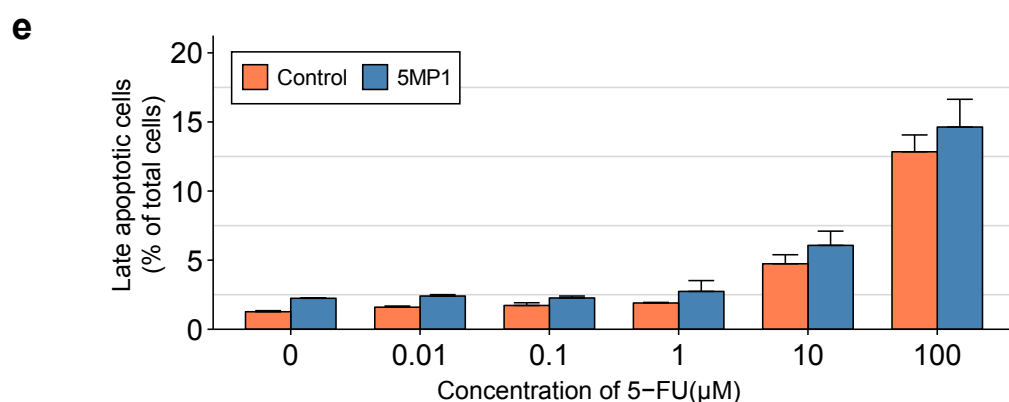


Figure S4. 5MP1 induces c-Myc-mediated cell cycle progression. Related to Figure 3. (a) Cell cycle assay of siRNA-mediated 5MP1-knockdown cells. Bar graphs represent the cell distribution in each cell cycle phase. (b) GSEA with a significant enrichment score showing a cell-cycle-related geneset that are positively correlated with 5MP1 expression in 5MP1-overexpressed cells. NES, normalized enrichment score. (c) Schematic of SCADS inhibitor screening analysis. (d) Representative data showing cell growth of control cells and 5MP1-overexpressed cells following treatment with each listed compound targeting the molecules displayed. (e) Apoptosis assay of 5MP1-overexpressed HCT116 cells. Bar graphs represent the cell distribution in late apoptosis (Annexin V-FITC+/propidium iodide [PI]+). Data represent the mean \pm SD. (*) $p < 0.05$; (**) $p < 0.01$; (***) $p < 0.001$.