Supplementary Table 4. Kinase inhibitor small molecule screening data

Category	Parameter	Description
Assay	Type of assay	CellTiter Blue-Cell viability assay
	Target	Kinase
	Primary measurement	fluorescence at 590nm
	Key reagents	CellTiter Blue reagent (Promega, #PAG8081)
	Assay protocol	Follow the manufacture instruction (Promega, #PAG8081): 1. Use DMSO to make 20x dilution from the original plates (10mM), then add 2ul of DMSO or diluted inhibitors into new 96-well assay plates. 2. Add 200ul single cell suspension into each well using a multi-channel pipette. For control Huh7 cells, seed 300 cells/well, for FIS Huh7 cells, seed $5x10^3$ cells/well. 3. Culture cells for 6 days. 4. Remove assay plates from 37 C incubator and add 20 µl/well of CellTiter-Blue Reagent. 5. Shake for 10 seconds. 6. Incubate using standard cell culture conditions for 2 hours. 7. Shake plate for 10 seconds and record fluorescence at 590nm using a TECAN Infinite® 200 PRO.
	Additional comments	No
Library	Library size	About 160 kinase inhibitors
	Library composition	Commercial small molecule kinase inhibitors
	Source	Cayman: Item No.10505, Batch No. 0612092
	Additional comments	Kinase Screening Library (96-well) https://www.caymanchem.com/product/10505/kinase-screening-library-(96-well)
Screen	Format	96-well plate
	Concentration(s) tested	2.5 µM
	Plate controls	Multiple wells with 2 µl DMSO on the same plates
	Reagent/ compound dispensing system	Manually
	Detection instrument and software	TECAN Infinite® 200 PRO.
	Assay validation/QC	fluorescence at 590nm
	Correction factors	
	Normalization	DMSO wells on the same plates
	Additional comments	Relative activity is calculated by the normalized fluorescence at 590nm of inhibitor wells to that of average DMSO control wells on the same plates
Post-HTS analysis	Hit criteria	Inhibitor treatment that exhibits >70% relative activity in control proliferating Huh7 cells, but <40% relative activity in FIS senescent Huh7 cells.
	Hit rate	2 out of 162 hits identified.
	Additional assay(s)	No
	Confirmation of hit purity and structure	No
	Additional comments	The identified hits were further verified experimentally as in the manuscript.