Figure S1. Gating strategy for the separation of APC- and PE-labeled CD44⁺ and CD133⁺ cells.

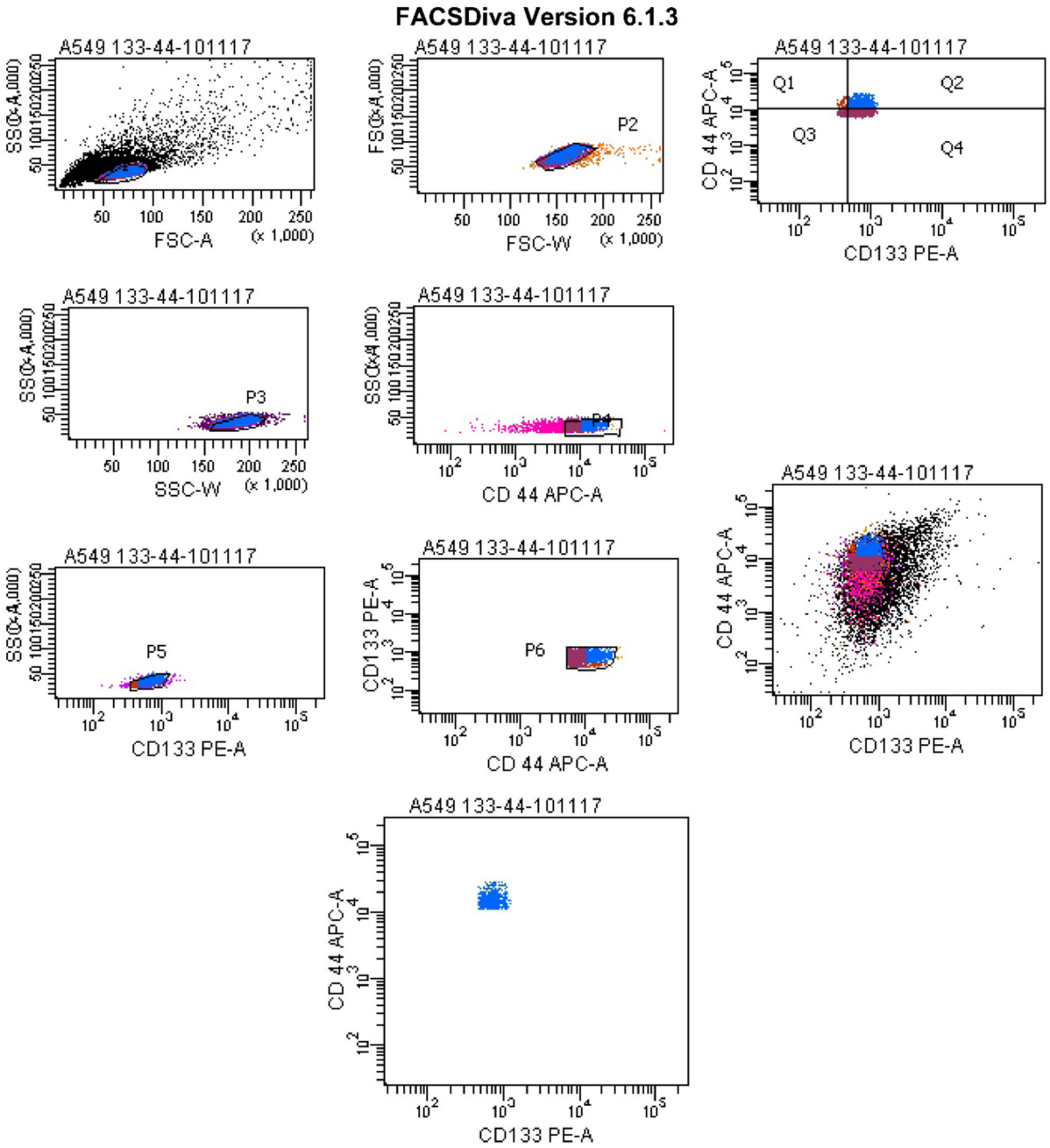

Figure S2. A549 CSC proliferation curve. Each line, shown in different colors, was formed according to the amount of cells per well. CSCs, cancer stem cells.

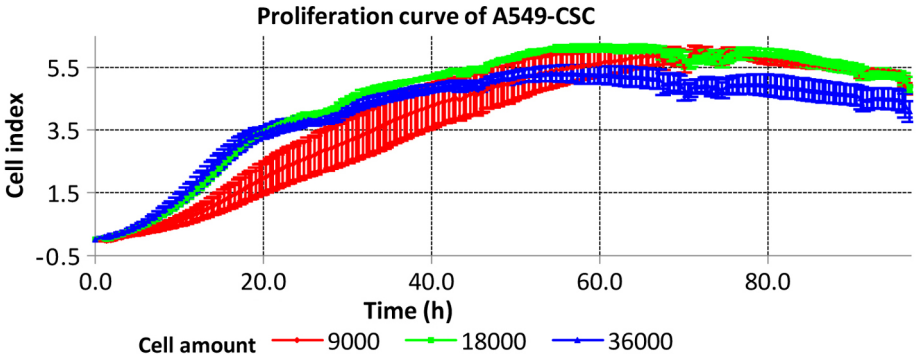

Figure S3. Slope values of A549 CSC proliferation. CSCs, cancer stem cells.

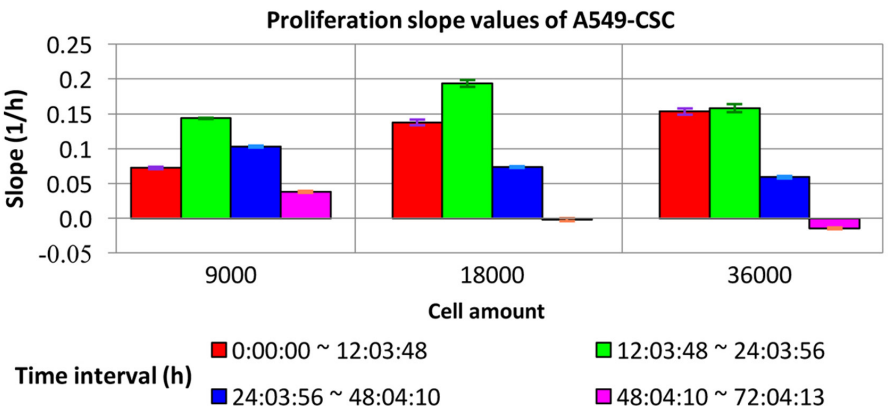

Figure S4. Cytotoxicity graph of A549-CSC line treated with different concentrations of resveratrol. CSC, cancer stem cell.

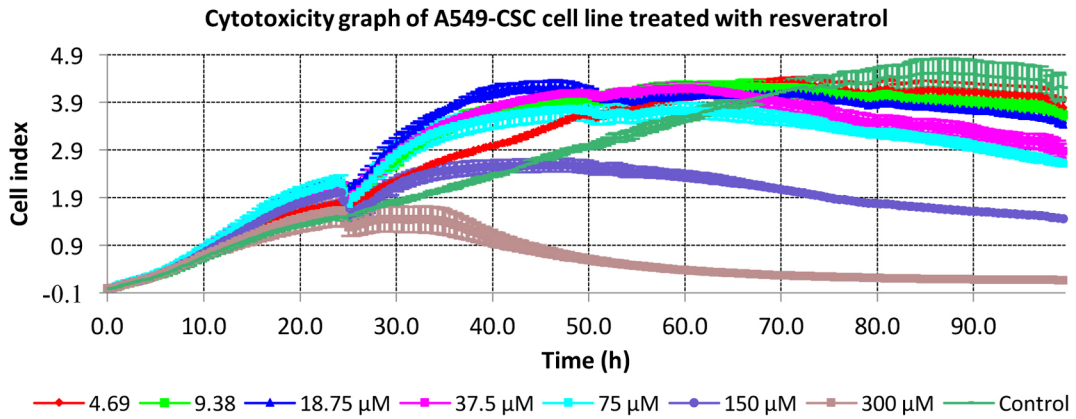

Figure S5. IC_{50} graph for 24, 48 and 72 h of the A549 cell line treated with resveratrol. IC_{50}, half maximal inhibitory concentration.

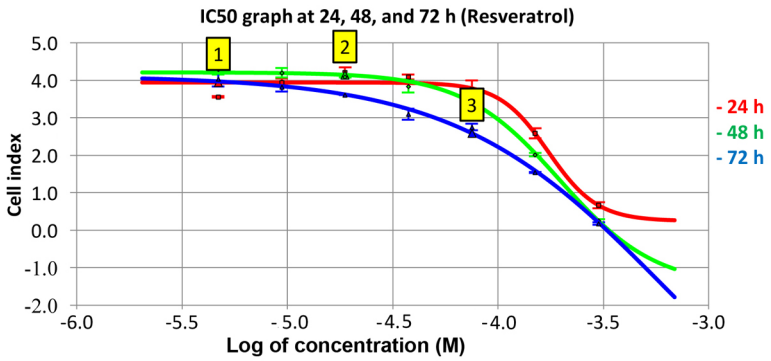

Figure S6. Cytotoxicity graph of A549-CSC line treated with sirtinol at different concentrations. CSC, cancer stem cell.

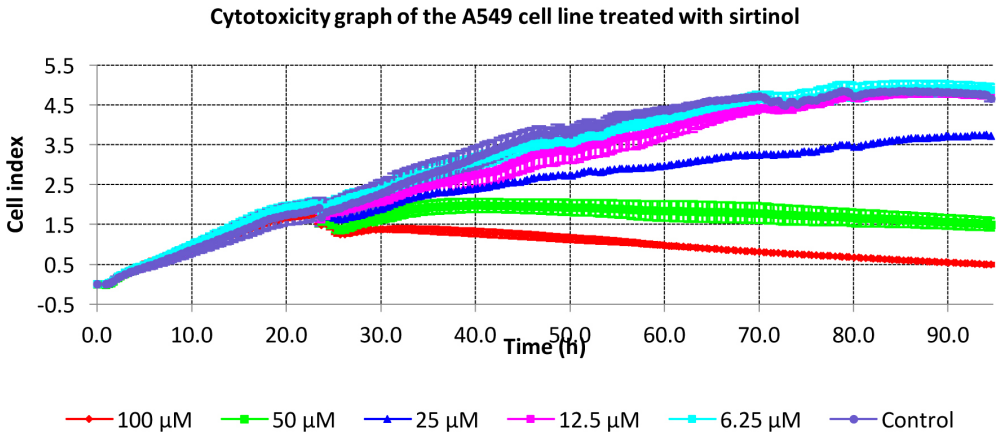

Figure S7. IC_{50} graph for 24, 48 and 72 h in A549-CSC line treated with sirtinol. CSC, cancer stem cell; IC_{50}, half maximal inhibitory concentration.

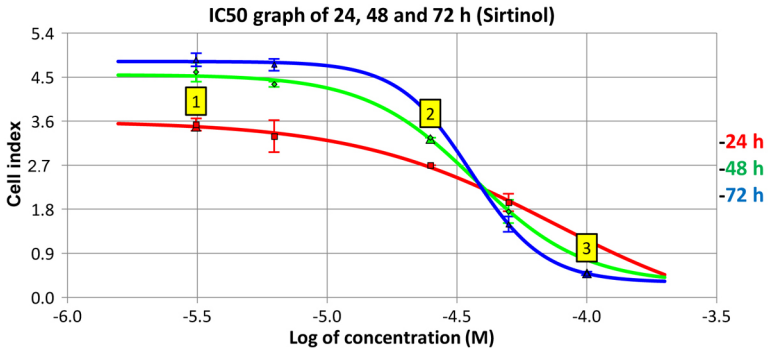

Figure S8. Cytotoxicity graph of A549-CSC line treated with tenovin-6 at different concentrations. CSC, cancer stem cell.

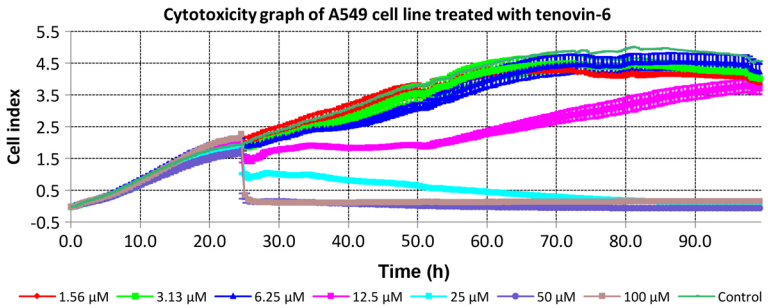

Figure S9. IC_{50} graph of A549-CSC line treated with tenovin-6 for 24, 48 and 72 h. CSC, cancer stem cell; IC_{50}, half maximal inhibitory concentration.

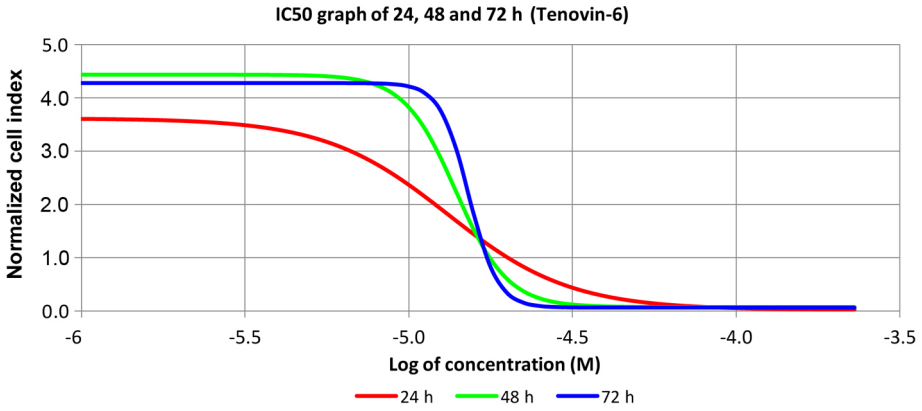

Figure S10. Cytotoxicity graph of the A549-CSC line treated with SRT1720 at different concentrations. CSC, cancer stem cell.

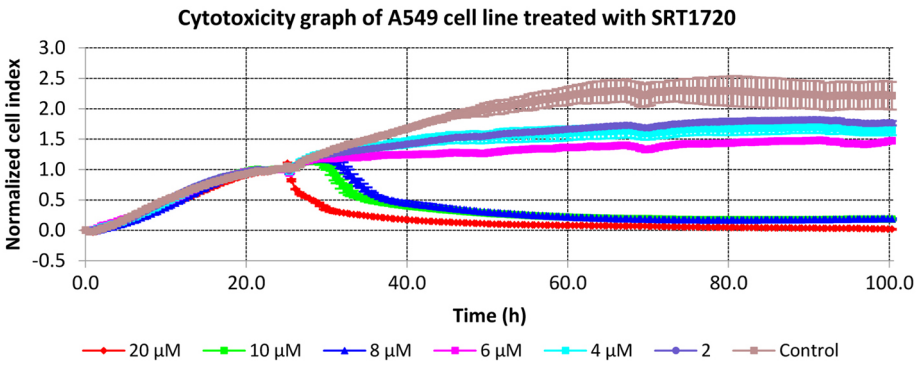

Figure S11. IC_{50} graph at 24, 48 and 72 h in the A549-CSC line treated with SRT1720. CSC, cancer stem cell; IC_{50}, half maximal inhibitory concentration.

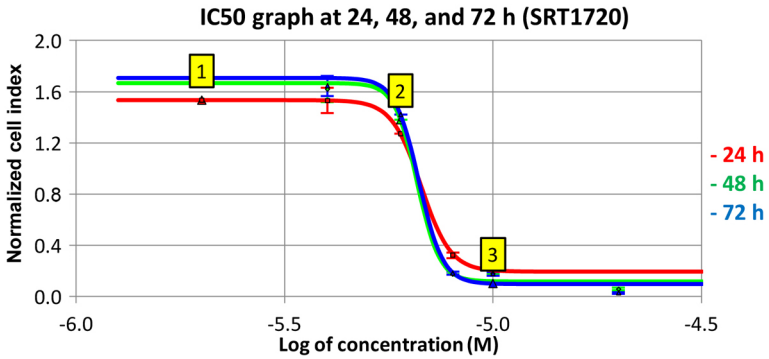

Figure S12. Expression of SIRT1, p53 and β-actin in CSCs treated with SIRT1 activators and inhibitors for 72 h. Although the assay does not show acetylated-p53 expression regulated by SIRT1, it should be considered that total p53 protein expression also includes acetylated-p53 expression. SIRT1, sirtuin 1; CSCs, cancer stem cells.

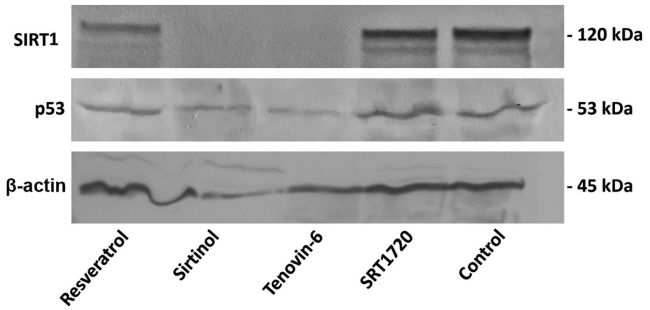

Figure S13. Ratio of SIRT1 and p53 protein expression in CSCs treated with SIRT1 activators and inhibitors for 72 h compared with UT A549 cells (*P<0.05). SIRT1, sirtuin 1; UT, untreated; CSCs, cancer stem cells.

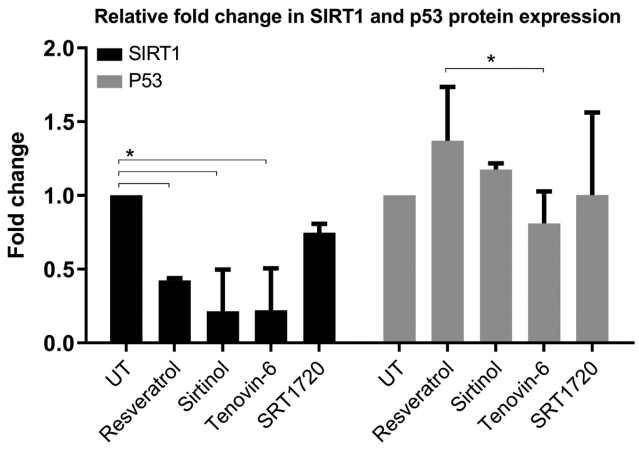

Table SI. Dilutions of stock solutions.

Molecules	Molecular weight	Quantity (mg)	Stock concentration (millimolar)	Volume (μl)
Sirtinol	394.47	1	20	126.8
Resveratrol	228.24	22.4	60	1,635.7
SRT1720	506.02	5	20	494.1
Tenovin-6	454.6	1	20	110.0

Table SII. Quantitative PCR reaction mixture.

Reagents	Quantity (μl)
TaqMAN mix	5.0
Taqman assay primer	0.5
ddH_2O	0.5
cDNA sample	1.0
Total volume	7.0

Table SIII. Mixture content on SDS-PAGE gel.

Content	Quantity
Sample (protein)	23.8 μg/ml
LDS	9 μl
Reducing	3.6 μl
H_2O	To 30 μl final volume

Table SIV. IC_{50} values of A549 cancer stem cells (CSCs) treated with sirituin 1 activators and inhibitors for 24, 48 and 72 h.

Active ingredients	IC_{50} in 24 h (μM)	IC_{50} in 48 h (μM)	IC_{50} in 72 h (μM)
Resveratrol	173	196	605
Sirtinol	74.4	37	35.8
Tenovin-6	13.1	13.9	15.3
SRT1720	6.72	6.57	6.64