





Supplementary Figure Legend

Supplementary Figure S1 - Experiment was performed as indicated in Figure 1c, except that normal melanocytes were used for the analysis, $P < 0.01$.

Supplementary Figure S2 - Analysis of CSL effect on viability of normal melanocytes was performed as detailed in Figure 1c, $P < 0.05$.

Supplementary Figure S3 - SW1 cells were transfected with the TRE-luciferase plasmid and 24h later cells were treated with the indicated doses of AIGA for 8h before proteins were prepared and level of luciferase activity was measured. ATF2⁵⁰⁻¹⁰⁰ peptide was used as a positive control. Data shown represent results from 3 experiments, $P < 0.0035$.

Supplementary Figure S4 - The effect of AIGA on ATF2 transcriptional activities, measured by the Jun2-luciferase plasmid transfected into SW1 cells was assessed as detailed in panel a, $P < 0.0045$.

Supplementary Figure S5 - Transcriptional activation of NF κ -B was assessed using the 2-NF κ -B-luciferase plasmid following treatment of cells with AIGA, using the experimental protocol outlined in panel a. Results shown represent 2 experiments, $P < 0.01$.

Supplementary Figure S6 - SW1 cells were treated with indicated doses of AIGA and CSL for 1h. UVC was used as a control. Total protein extracts were used to determine the phosphorylation of ERK1/2, total levels of ERK1/2, phospho AKT and total AKT levels.

Supplementary Figure S7 - SW1 cells were pretreated (for 30 min) with the JNK inhibitor SP600125 (10 μ M) followed by addition of AIGA for 20h. ATP levels were used to measure the cell viability using the ATP-lite kit. Calculation for altered viability was performed as detailed in legend to Fig 1c. Shown are representative results from 2 experiments. $P < 0.01$.

Supplementary Figure S8 - Western blot analysis for JNK phosphorylation on residues 183/185 was performed on protein extracts that were prepared from cells treated with AIGA, as indicated in panel S7. Lower panel depicts total level of JNK.

Supplementary Figure S9 - SW1 cells were treated with AIGA at the indicated concentrations, and the degree of apoptosis, measured by FACS analysis, was determined 48 h later. Data shown represents three different experiments.

Supplementary Figures S10, S11 - Human melanoma WM115 (S10) or MeWO (S11) cells were treated with the indicated doses of AIGA for 20h. ATP levels were used to

measure the cell viability using the ATP-lite kit. Calculation was performed as detailed in legend to Fig 1c. Shown are representative results from 3 experiments.