

<Supplementary information>

Galangin sensitizes TRAIL-induced apoptosis through down-regulation of anti-apoptotic proteins in renal carcinoma Caki cells

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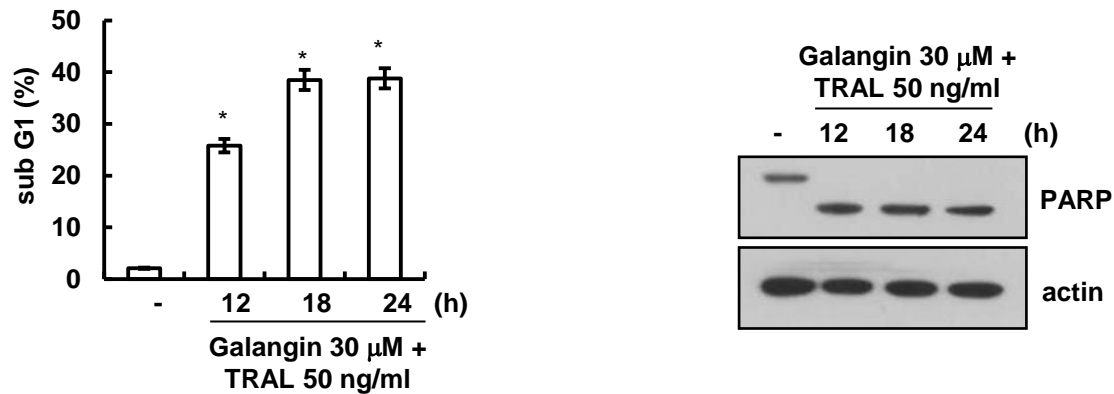


Figure S1. Galangin sensitizes TRAIL-mediated apoptosis in Caki cells. (A) Caki cells were treated with 50 ng/ml TRAIL in the presence or absence of the indicated concentrations of galangin for the indicated time periods. The sub G1 population was measured by flow cytometry (left panel). The protein levels of PARP was determined by Western blot analysis. Actin was used as a loading control (right panel). * p < 0.01 compared to the control.

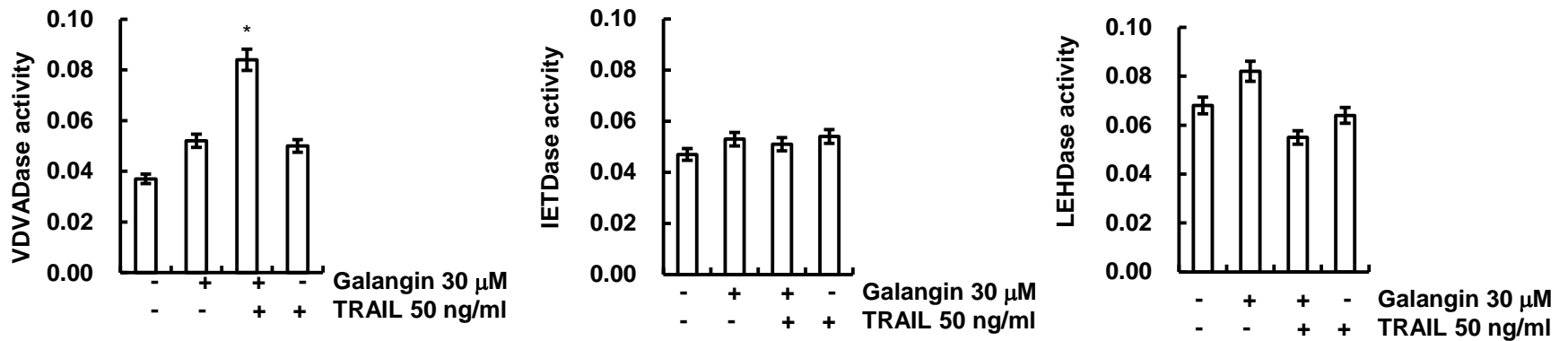


Figure S2. Effect of combined treatment with galangin and TRAIL on caspases activities. Caki cells were treated with 50 ng/ml TRAIL in the presence or absence of 30 μM galangin for 24 h. Caspases activities were determined with colorimetric assays using caspase-2 (VDVADase) assay kits, caspase-8 (IETDase) assay kits and caspase-9 (LEHDase) assay kits. The values in Figure represent the mean ± SD from three independent samples. * $p < 0.05$ compared to the galangin treatment alone.

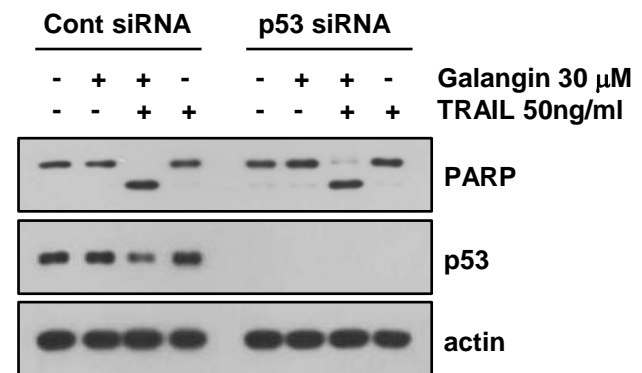
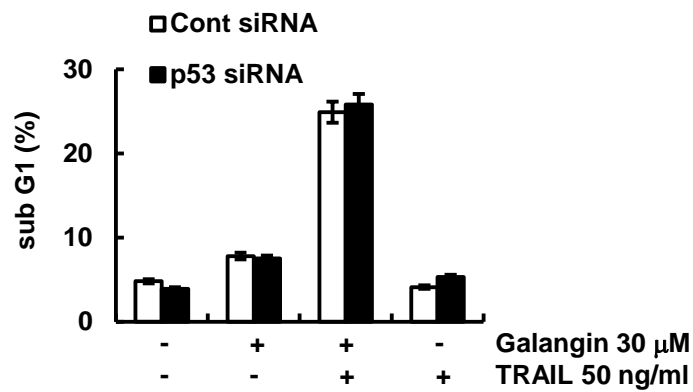


Figure S3. The p53 has no effect on galangin plus TRAIL-induced apoptosis. Caki cells were transiently transfected with a control siRNA or p53 siRNA. Twenty-four hours after transfection, cells were treated with 50 ng/ml TRAIL in the presence or absence of the indicated concentrations of galangin for 24 h. The sub G1 population was measured by flow cytometry (left panel). The protein levels of PARP and p53 were determined by Western blot analysis. Actin was used as a loading control (right panel).

Figure 1a



Figure 1f

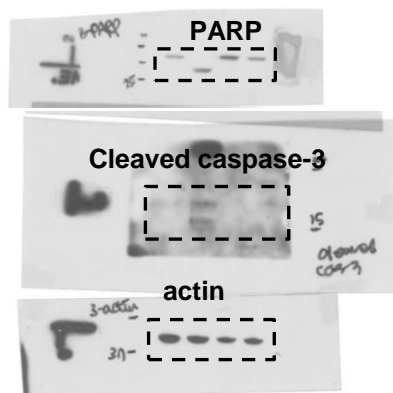


Figure 1g

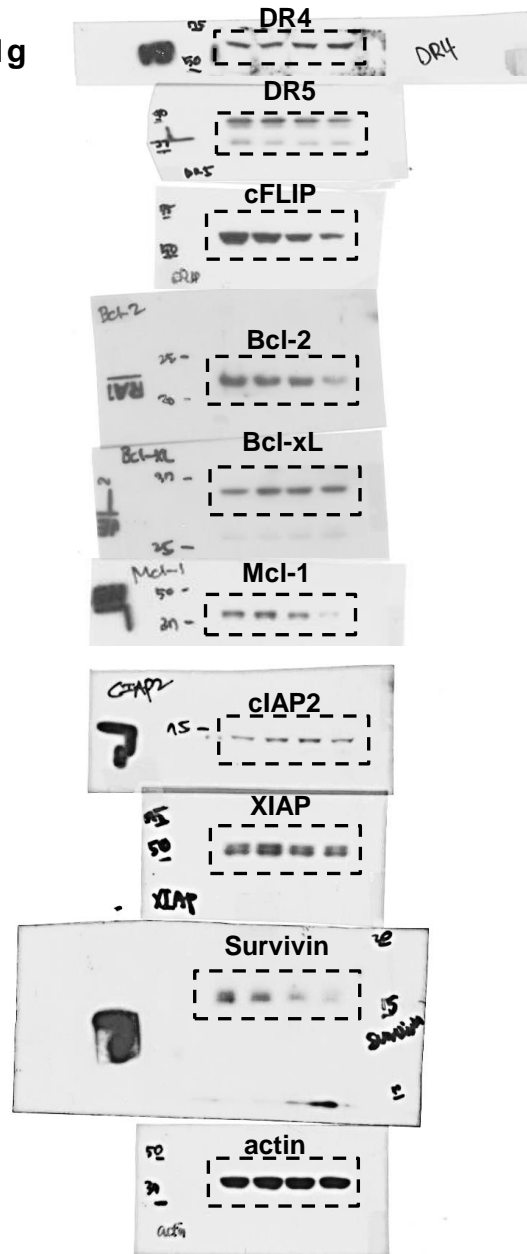


Figure S4. Full-length images of the immunoblots in Figure 1. Black dot line boxes indicate the cropped images used in Figure 1

Figure 2a

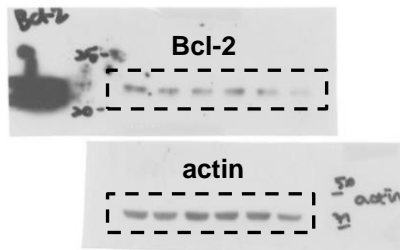


Figure 2c

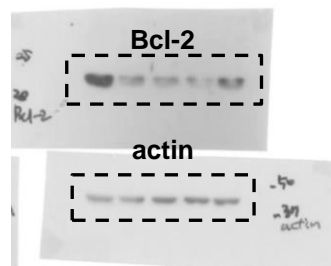


Figure 2d

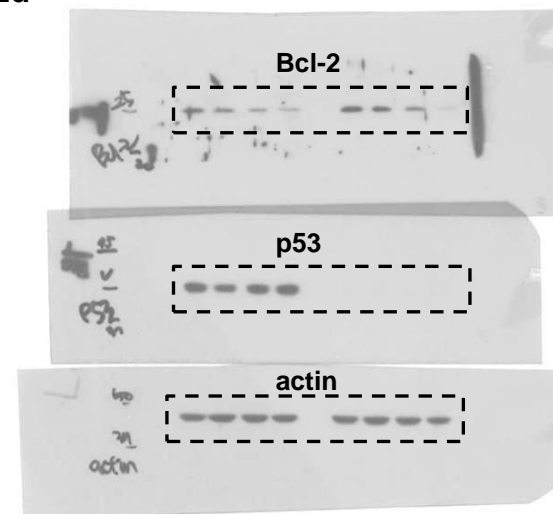


Figure 2f

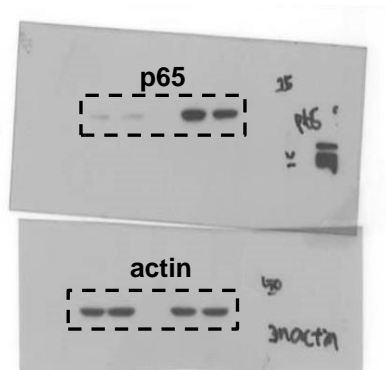


Figure 2g

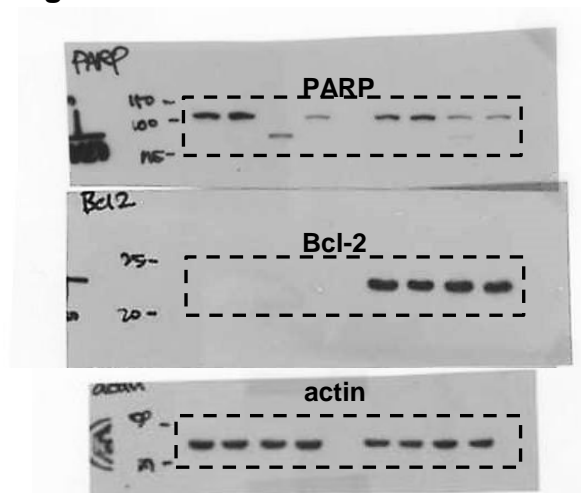


Figure S5. Full-length images of the immunoblots in Figure 2. Black dot line boxes indicate the cropped images used in Figure 2

Figure 3a

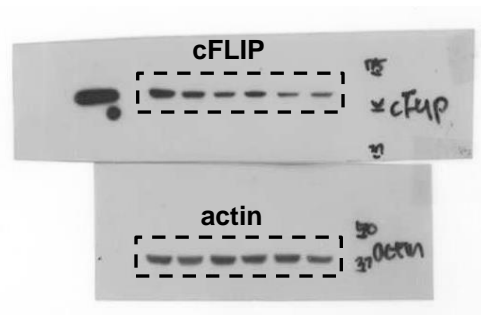


Figure 3b



Figure 3c

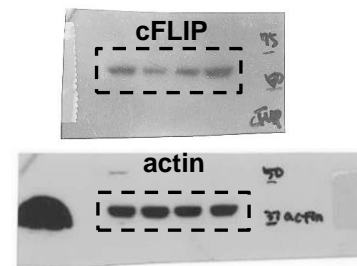


Figure 3d

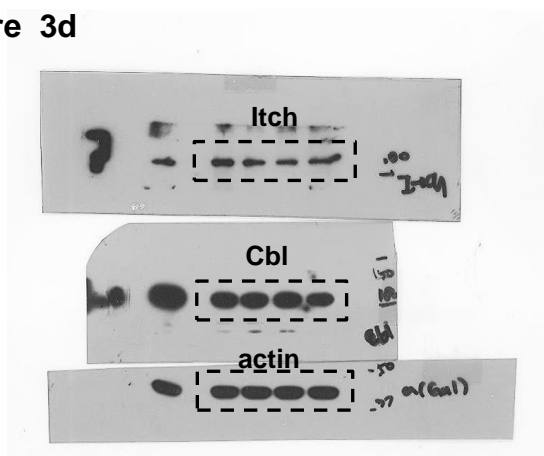


Figure 3e

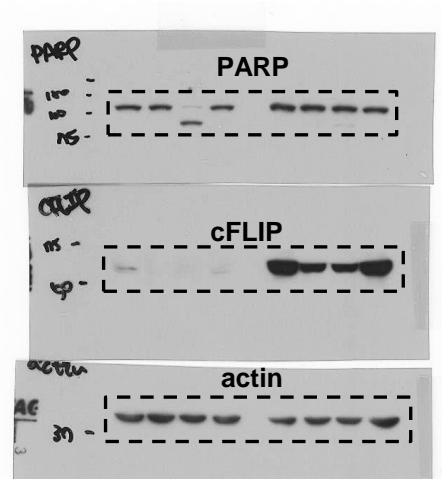


Figure S6. Full-length images of the immunoblots in Figure 3. Black dot line boxes indicate the cropped images used in Figure 3

Figure 4a

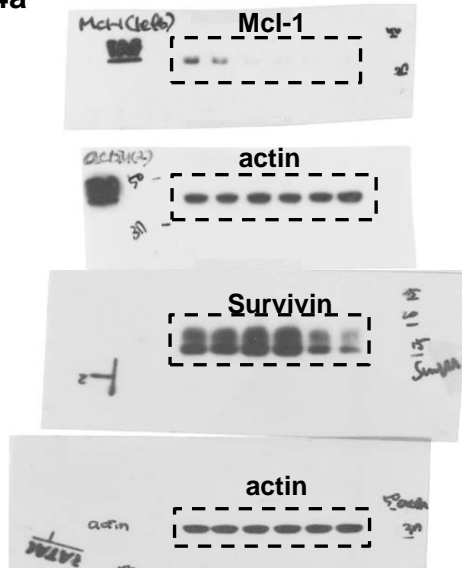


Figure 4b

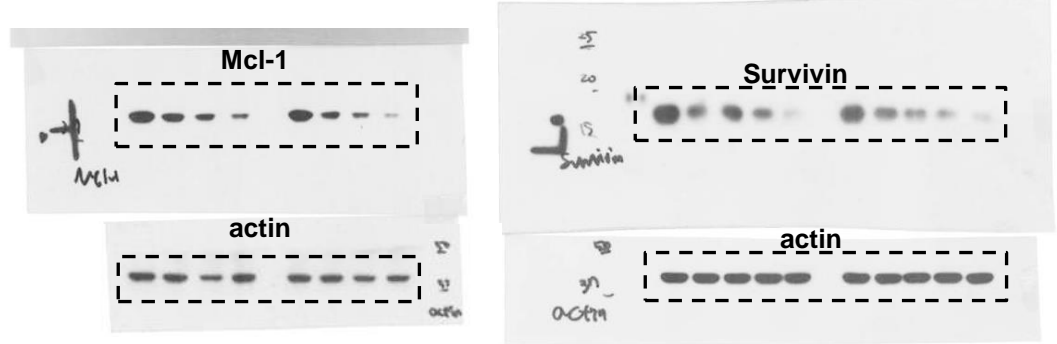


Figure 4c

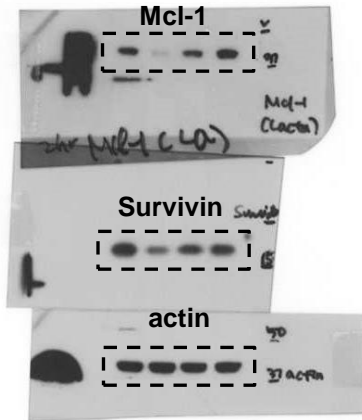


Figure 4d

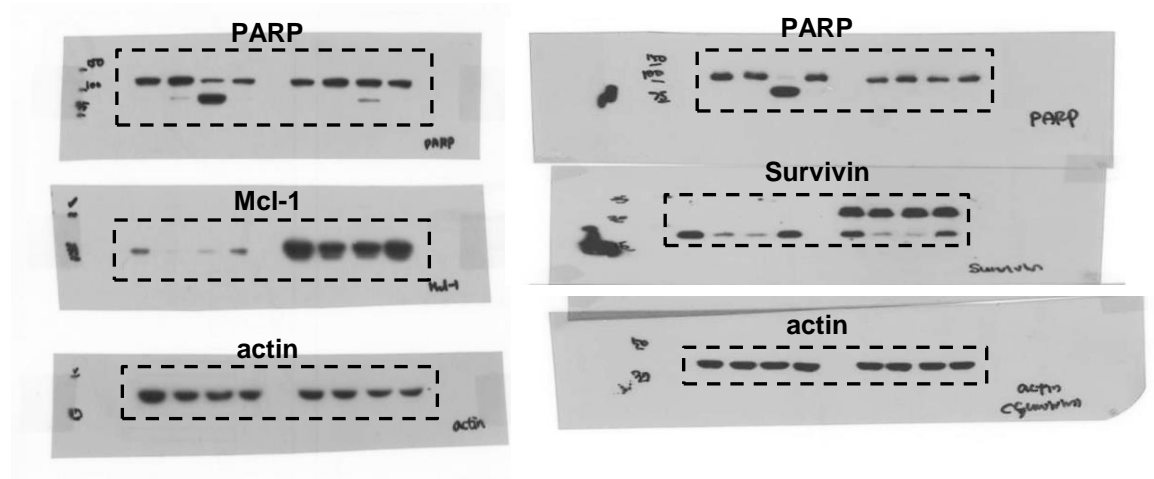


Figure S7. Full-length images of the immunoblots in Figure 4. Black dot line boxes indicate the cropped images used in Figure 4

Figure 5b

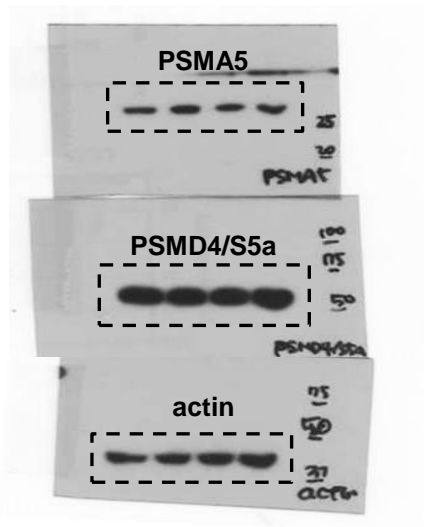


Figure 5d

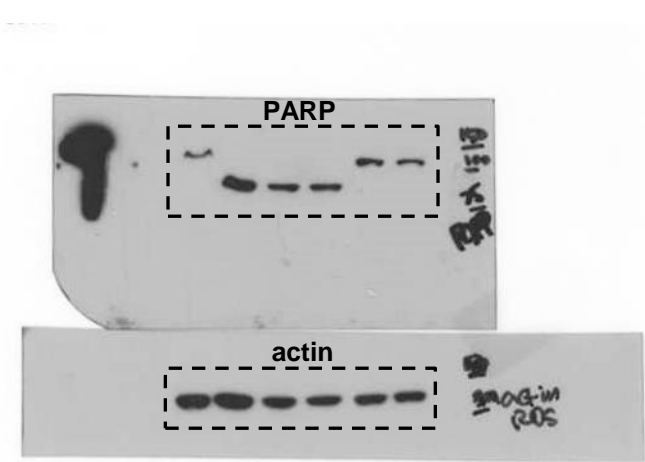


Figure S8. Full-length images of the immunoblots in Figure 5. Black dot line boxes indicate the cropped images used in Figure 5

Figure 6a

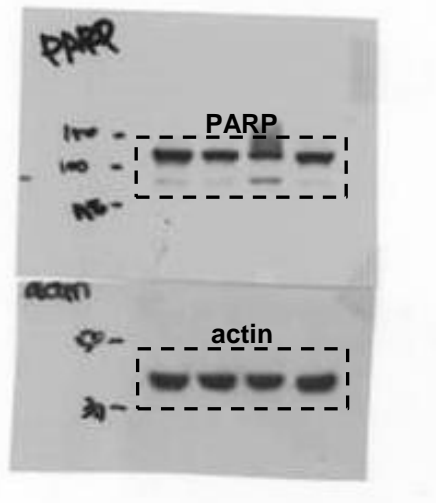


Figure 6b

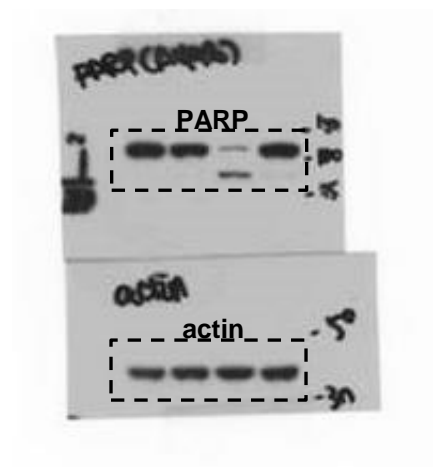


Figure S9. Full-length images of the immunoblots in Figure 6. Black dot line boxes indicate the cropped images used in Figure 6