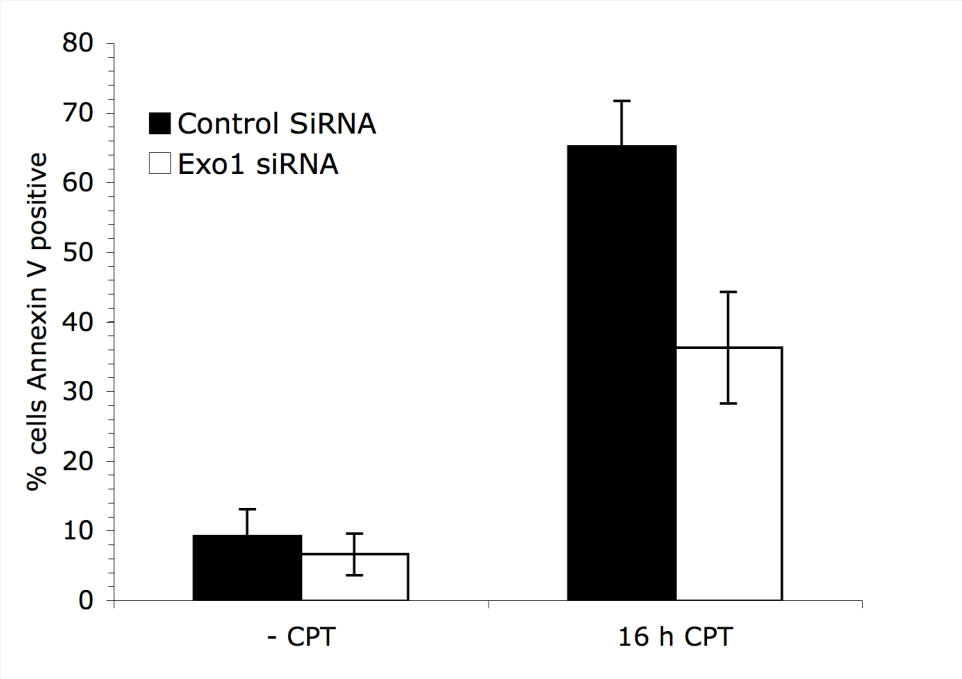
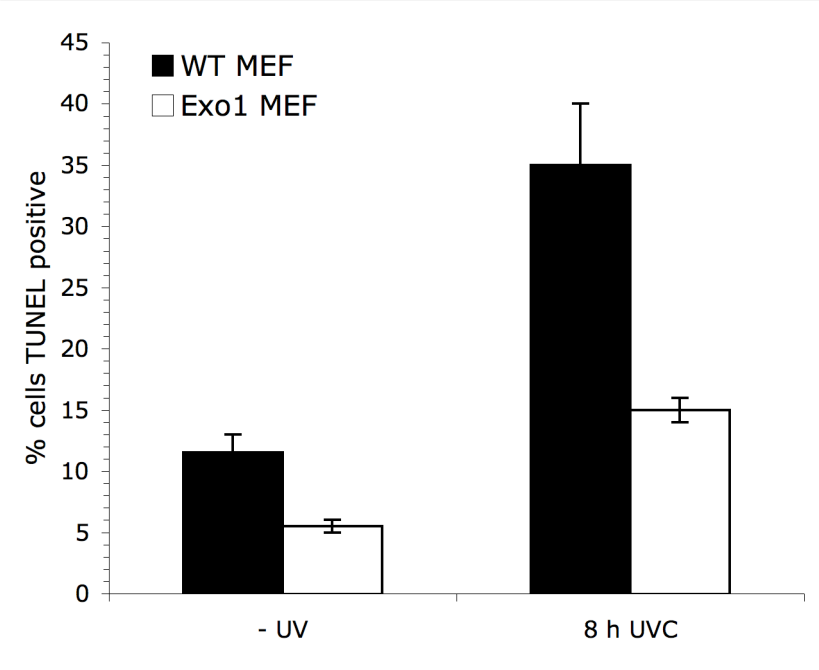
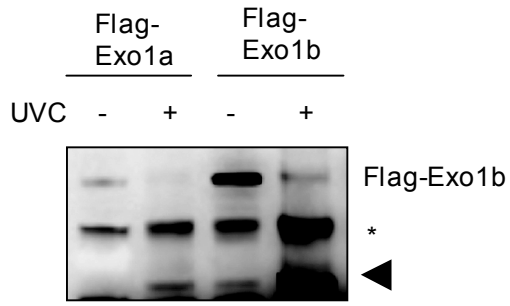


Supplementary Figure 1. Exo1 is required for the induction of apoptosis by CPT. Hela cells were transfected with the indicated siRNA. Twenty-four hours after transfection cells were treated with 10μM CPT. Sixteen hours after CPT treatment, cells were stained with annexin V antibodies and analysed via FACS. The results shown are the average of two independent experiments and the error bars represent the standard error of the mean.

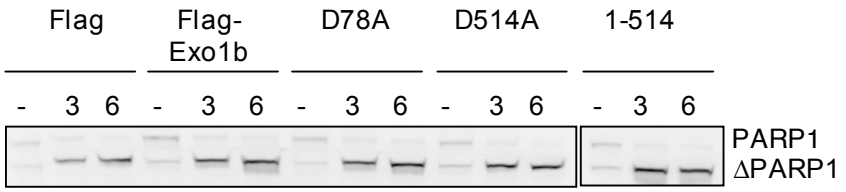


Supplementary Figure 2. Wild-type and Exo1 deficient MEFs were treated with 40J/m^2 UVC. Eight hours after treatment cells were fixed and TUNEL-stained. 200 cells were scored for TUNEL staining. The results shown are the average of two independent experiments and the error bars represent the standard error of the mean.

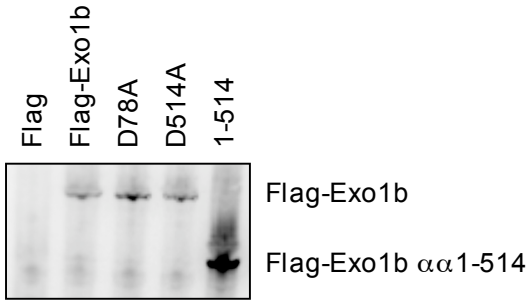


Supplementary Figure 3. Both isoforms of Exo1 are cleaved. Hela cells were transfected with Flag-Exo1a or Flag-Exo1b constructs and treated with 40J/m^2 UVC. Six hours after UVC treatment cell lysates were collected and immunoprecipitated with Flag-M2 beads. Immunoprecipitates were immunoblotted with Flag antibodies. Arrowhead denotes cleaved Exo1. * indicates non-specific cross-reacting bands.

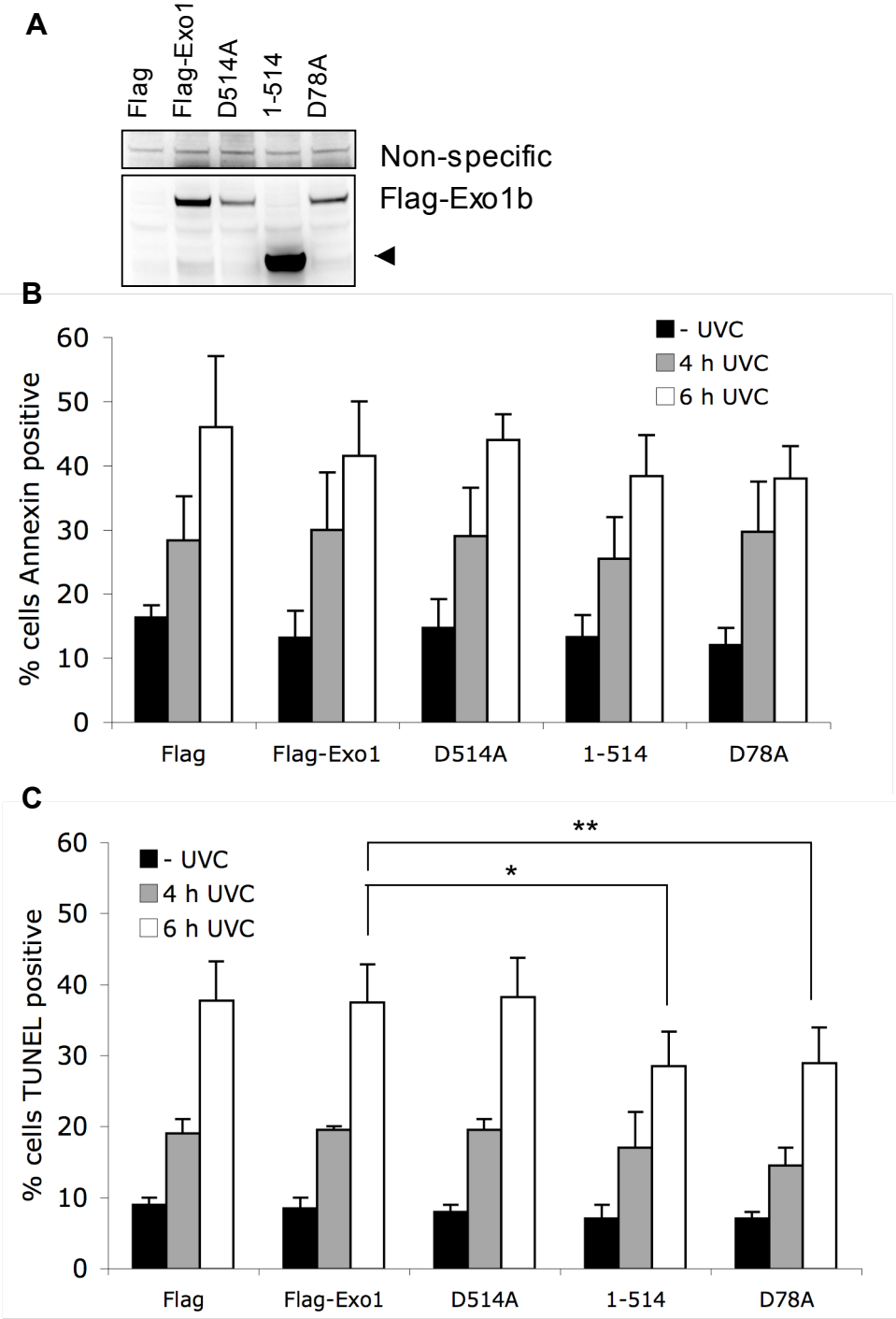
A



B



Supplementary Figure 4. Hela cells were transfected with the indicated constructs. Twenty-four hours after transfection cells were exposed to 40J/m^2 UVC and extracts were taken three and six hours after UVC exposure. **A**, Extracts were immunoblotted with the PARP1 antibody. **B**, the untreated extracts from A, were immunoprecipitated with Flag-M2 beads and immunoblotted with the Flag antibody to show the expression of the various Flag-Exo1 constructs.



Supplementary Figure 5. Expression of Exo1b mutants does not significantly effect the induction of apoptosis or DNA fragmentation following UVC treatment. **A**, Twenty-four hours after transfection of Hela cells with the indicated constructs, cell extracts were taken and immunoblotted with antibodies against the Flag epitope. **B, C,** Twenty-four hours after transfection with the indicated constructs, cells were treated with 40J/M^2 UVC. **B,** Cells were taken for annexin V staining 4 and 6 hours after UVC treatment. Cells were analysed for annexin V staining via FACS. **C,** Cells were fixed for TUNEL staining 4 and 6 hours after UVC treatment. Cells were analysed for TUNEL staining via immunofluorescence. Unpaired T-test statistics: * P value equals 0.2637, ** P value equals 0.2928. The results shown are the average of 3-4 independent experiments and the error bars represent the standard error of the mean.