



## **Supplemental Material to:**

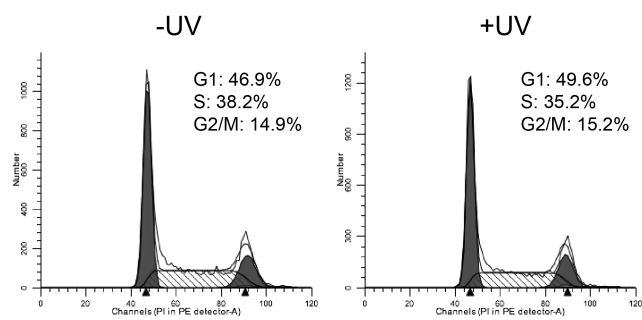
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**Spartan/C1orf124 is important to  
prevent UV-induced mutagenesis**

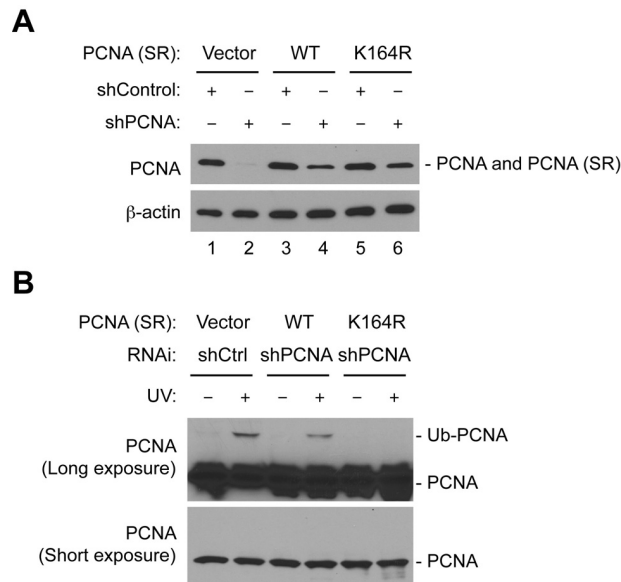
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**Figure S1. Cell cycle analysis of U2OS cells after UV exposure.** U2OS cells stably expressing EGFP-Spartan1 were treated with or without 20 J/m<sup>2</sup> UV and DNA content after 3hr was analyzed by FACS following propidium iodide staining.



**Figure S2. Creation of cells expressing wild-type or the K164R mutant of PCNA.**

- (A) Assessment of endogenous and exogenous PCNA proteins. Wild-type or the K164R mutant of PCNA was expressed in HCT116. Endogenous PCNA was then knocked down by PCNA shRNA. Exogenous PCNA proteins were resistant to RNAi because they were expressed from cDNAs containing silent mutations in the target sequence of shPCNA. Expression of PCNA was examined by Western blotting 72 hr after infection of shRNA viruses. Note that PCNA shRNA efficiently depleted endogenous PCNA but not exogenous PCNA (compare lanes 2, 4 and 6).  $\beta$ -actin is shown as a loading control. SR: siRNA resistant.
- (B) Cells expressing the K164R mutant of PCNA are defective in PCNA monoubiquitination. Cells exogenously expressing wild-type and the K164R mutant of PCNA were treated with 20 J/m<sup>2</sup> UV and lysed after 3 hr. As a control, cells expressing endogenous PCNA (vector + shCtrl) were processed similarly. PCNA was examined by Western blotting.