

Fig. S1. Distribution of protein function/localization based on the K-GG analysis of the FANCA and FANCC cells and their corrected counterparts. Proteins with no significant differences are indicated in gray; significant negative ratios are indicated in red, and significant positive ratios are indicated in green.

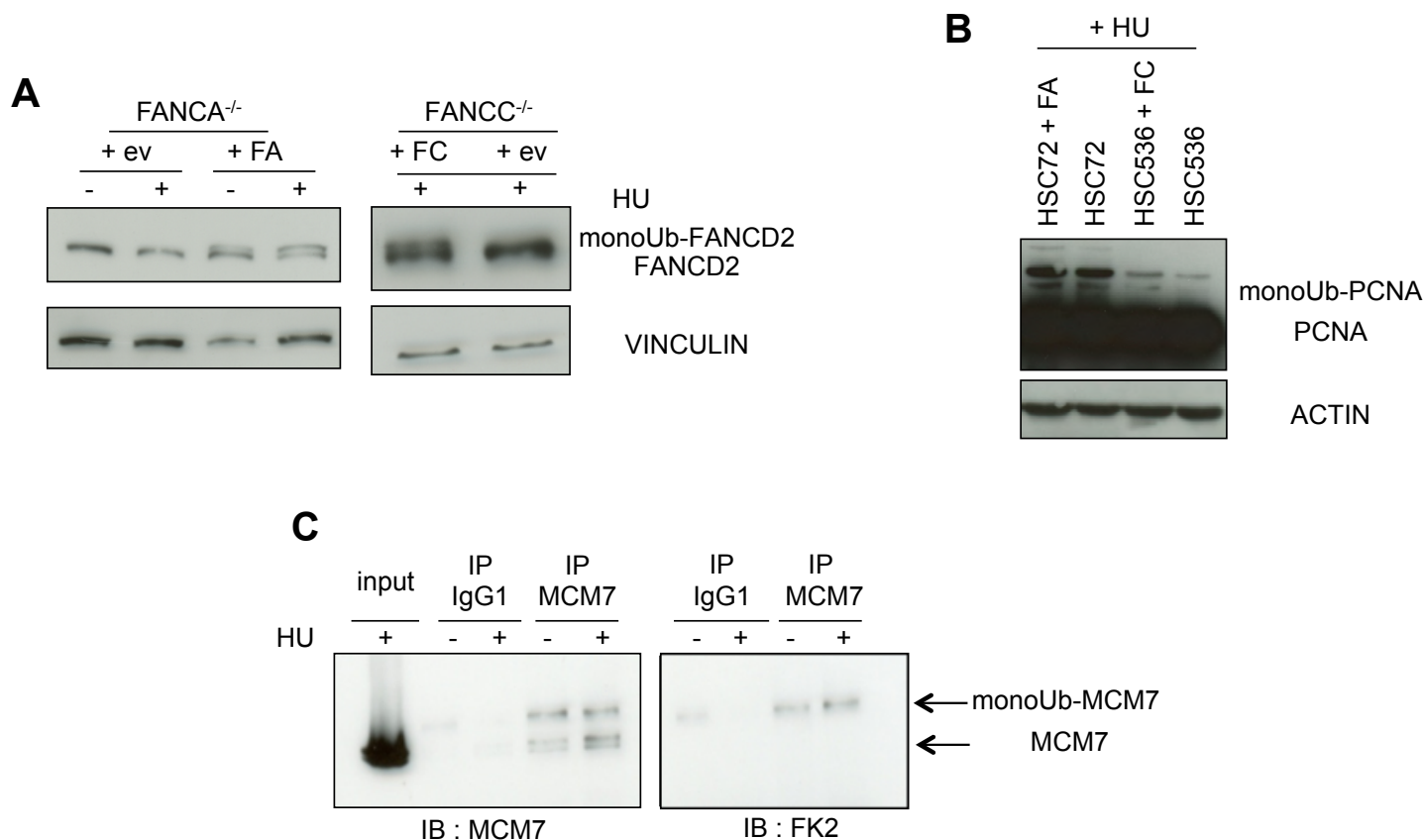


Fig. S2A. FA deficient cells are fully complemented for FANCD2 monoubiquitination. Western-blot showing FANCD2 monoubiquitinylation in untreated conditions or after 8h of exposure to 5mM. Whole cell extracts from FANCD-deficient and -proficient cells were analyzed by immunoblot using anti-FANCD2 or anti-Vinculin antibodies.

Fig. S2B. FANCD-deficient and -proficient cells monoubiquitinated normally PCNA.

Fig. S2C. MCM7 is a protein monoubiquitinated protein. Western-Blot analysis of immunoprecipitation with anti-MCM7 or anti-FK2 antibodies. Protein extracts from HeLa cells were incubated with appropriate antibody or isotypic controls (IgG1) over-night, and immunoprecipitated proteins were analyzed with the indicated antibody. The same IP was loaded twice for the different staining to avoid cross reaction.

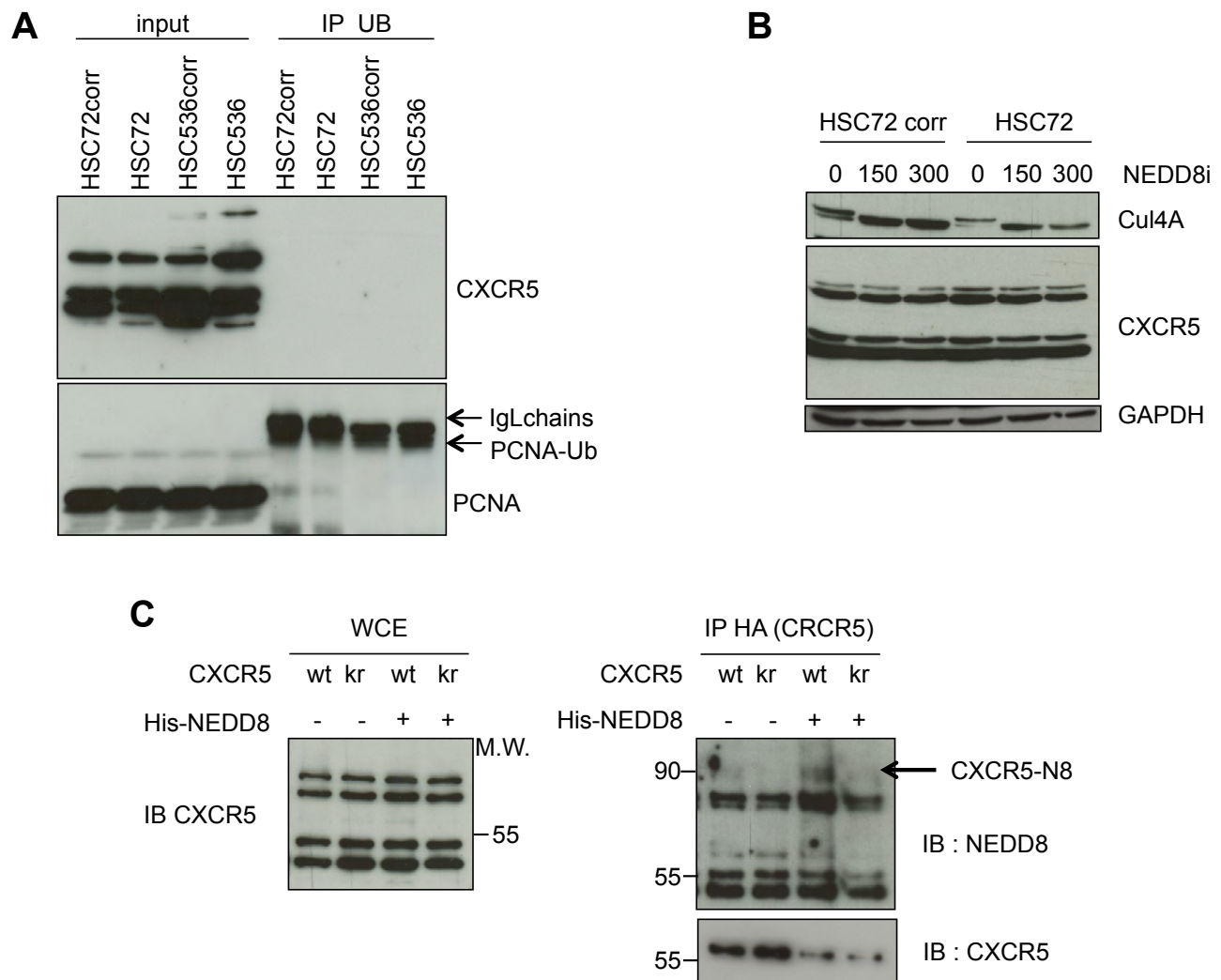


Fig. S3A. CXCR5 is not a ubiquitinated protein. Western blot results showing the expression level of CXCR5 after immunoprecipitation (IP) with a ubiquitin antibody (Ub) in FANCA cells, FANCC cells and their corrected counterparts after HU treatment (5 mM for 8 h). A PCNA blot is shown as a positive control for the IP.

Fig. S3B. The NEDD8 inhibitor does not modify endogenous levels of CXCR5. Effect of the NEDD8 inhibitor MLN4924 on expression level of CXCR5. Cul4A was analyzed as control of the efficiency of the NEDD8 inhibitor. The upper, neddylated band, disappears in response to MLN4924.

Fig. S3C. The CXCR5-KR mutant is not neddylated. Cells transfected with the WT of KR mutant of CXCR5 co-transfected or not with a His-NEDD8 expression vector. Cellular extracts were immunoprecipitated with anti HA antibodies and Western blot was revealed by a NEDD8 antibody. A neddylated band appears specifically in cells co-transfected with wt-CXCR5 and His-NEDD8 but not in cells co-transfected with the KR-CXCR5 mutant plus the His-NEDD8 fusion. Please note that the expression of His-NEDD8 induces a strong decrease of HA-CXCR5, likely inducing its degradation.

Table S1. K-GG peptides and proteins identified in FA-C and corrected cell lines.

[Download Table S1](#)

Table S2. K-GG peptides and proteins identified in FA-A and corrected cell lines.

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Table S3. Common proteins identified in both the FA-A and FA-C screening.

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