Supplemental Figure legends

Supplemental Figure 1

Recombinant GST-EXO-PIN was incubated with or without biotin-PAR. The interaction was examined by streptavidin bead pull-down assay and Western blot with anti-GST antibody.

Supplemental Figure 2

(A) ITC analyses show the binding affinity between the EXO1-PIN and PAR. The K*d* is indicated in the lower panel. (B) The *in vivo* interaction between EXO1 and PAR was examined by co-IP and reciprocal co-IP. U2OS cells were treated with 20 J/m^2 UV. 5 minutes after UV treatment, cells were lysed and analyzed with indicated antibodies. Input or IPed samples were analyzed by dot blotting or Western blotting with the indicated antibodies.

Supplemental Figure 3

EXO1 itself is not PARylated in response to IR. Same as Figure 3D except that the precipitation of co-IP was treated with or without 1 % SDS.

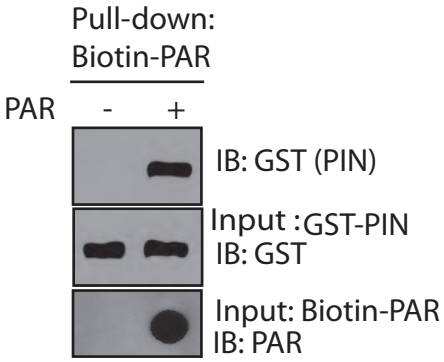
Supplemental Figure 4

EXO-PIN (R93G) interacts with MSH3. GFP-EXO1-PIN (R93G) was expressed in U2OS cells. The interaction between EXO1-PIN (R93G) and MSH3 was examined with indicated antibodies.

Supplemental Figure 5

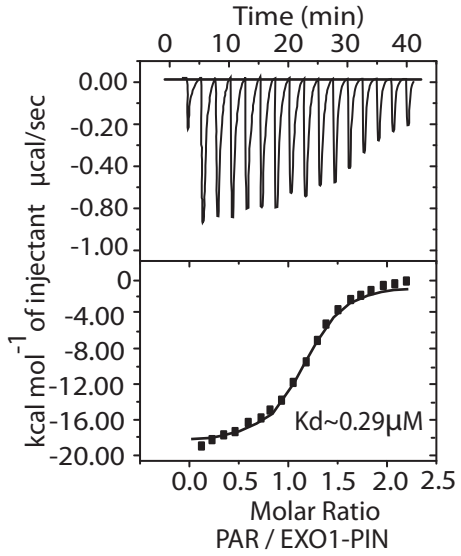
R93G mutant partially rescue wild type EXO1 function in HR repair. U2OS-DrGFP cells were treated with the indicated siRNA. The siRNA-treated cells were then transfected siRNA-resistant EXO1 plasmid and infected by adeno-I-SecI. The percentage of GFP-positive cells was examined by flow cytometry. Data are averages from three independent experiments.

Supplemental Figure 1



Supplemental Figure 2

A



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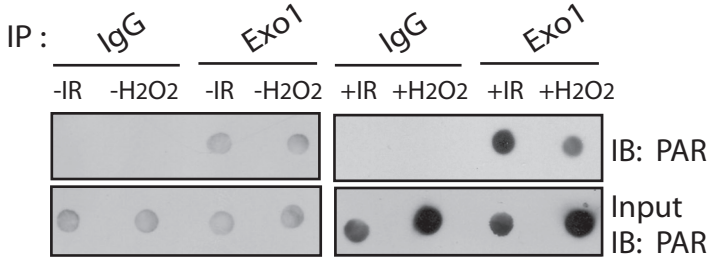
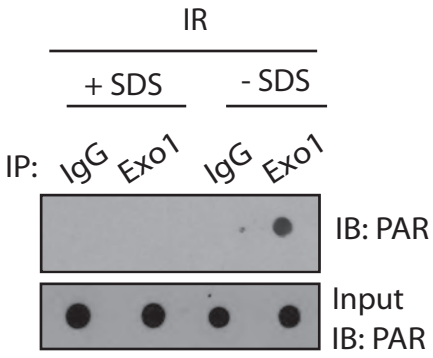
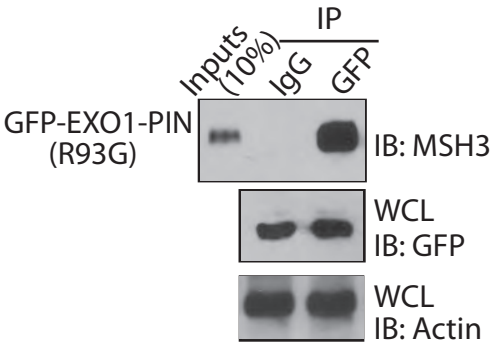


Supplemental Figure 3



Supplemental Figure 4



Supplemental Figure 5