Supplemental Movies

Movie 1 (oxoG_LRC-No_dDXL-fig. 4*A*): 30 ns MD simulation of the hOGG1 LRC in the absence of the distal disulfide crosslinker. Selected active site residues are displayed in stick representation and the target oxoG is shown in ball and stick representation. Averaged snapshots from this simulation were used to create fig. 4*A* and fig. 5*A*,*D*.

Movie 2 (G-complex-No_dDXL-fig. 4*B*): 30 ns MD simulation of the hOGG1 G-complex in the absence of the distal disulfide crosslinker. Selected active site residues are displayed in ball and stick representation and the target guanine is shown in space filling representation. Averaged snapshots from this simulation were used to create fig. 4*B* and fig. 5*C*.

Movie 3 (G-complex-with_dDXL-fig. 4*C*): 30 ns MD simulation of the hOGG1 G-complex in the presence of the distal disulfide crosslinker. The target guanine and the tethered adenine are shown in stick representation. The four-carbon tether and the S292C mutation are modeled into the structure and shown in stick representation (blue). Averaged snapshots from this simulation were used to create fig. 4*C* and fig. 5*B*,*D*.