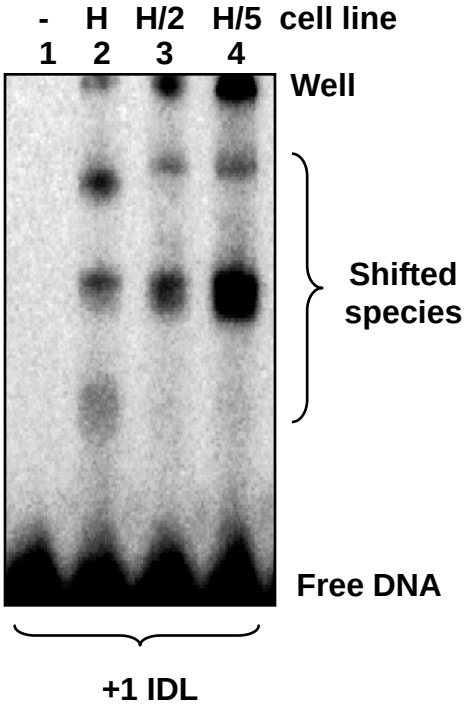
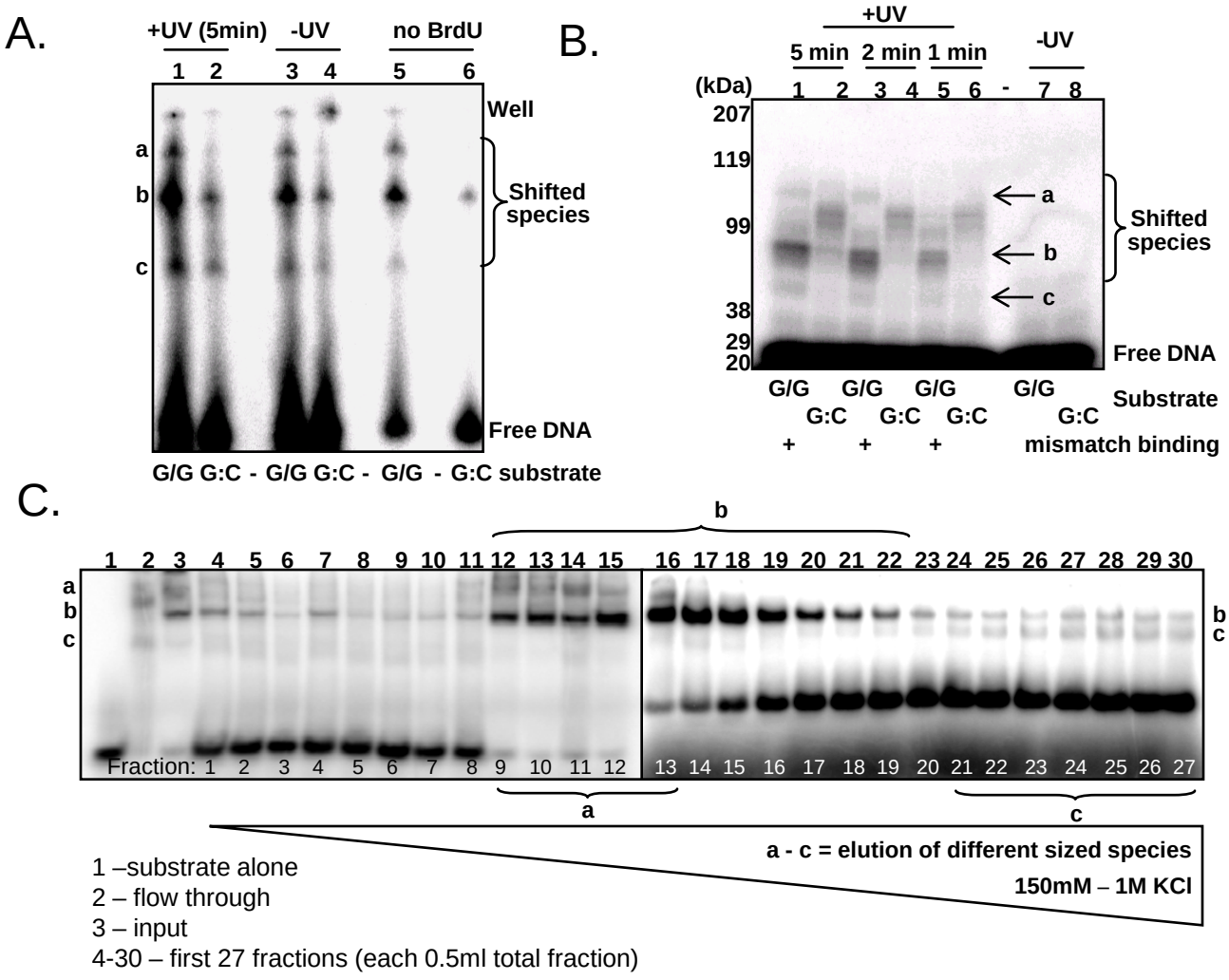
Figure S1



EMSA of mitochondrial lysates from HHUA-derived lines on the +1IDL substrate, a lesion that is recognised by both MutSα (MSH2:6 heterodimer) and MutSβ (MSH2:3 heterodimer). HHUA (lane 2), is MSH3 and MSH6-deficient, H/2 (lane 3), is complemented with chromosome 2, which carries *MSH6*, and H/5 (lane 4) is complemented with chromosome 5 carrying *MSH3*. Lane one is substrate alone.

Figure S2

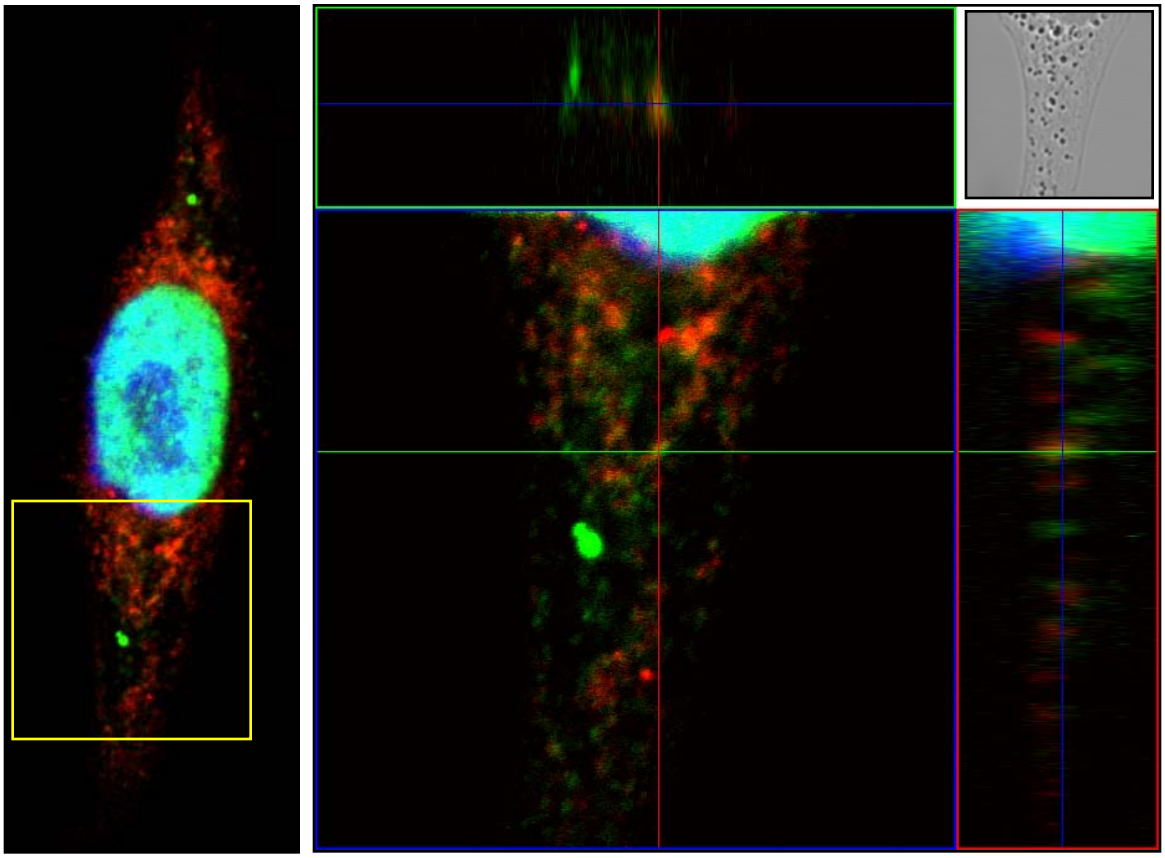


A. UV cross-linking EMSA. Samples were subjected to EMSA as standard and half the reaction run on native PAGE as describes in the Methods section. UV-irradiated (+UV, 5 min, lanes 1 & 2) or mock-treated (no UV, lanes 3& 4) binding on BrdU-labelled dG/dG substrate (Table 1) is shown. Binding to unmodified dG/dG and dG:dC is given in lanes 5 & 6 respectively. As usual, the binding species are labeled a-c and marked.

B. SDS-PAGE of the other half of the same reactions. Specific heteroduplex-binding complexes in UV-irradiated fractions distinct from the homoduplex are marked as before (compare lanes marked + to unmarked lanes).

C. EMSA of HeLa mitochondrial lysates on the +1 IDL substrate after fractionation through DEAE column (column 1, see Methods section), the first 27 fractions were tested (lanes 4-30). Species a-c are marked. Fractions positive for species a and b were pooled together (fractions 9-19, see brackets) as these largely co-purified. Fractions positive for c were pooled separately (fractions 21-27).

Figure S3



Immunofluorescence as standard of YB-1 (green) and MitoTracker red (red) on HeLa cells with no thymidine treatment. Co-localization can be seen as orange-yellow spots. The nucleus is blue (stained with DAPI). The upper and right-hand side panels show 3-dimensional representation of the cell portion shown on the left (yellow square).