

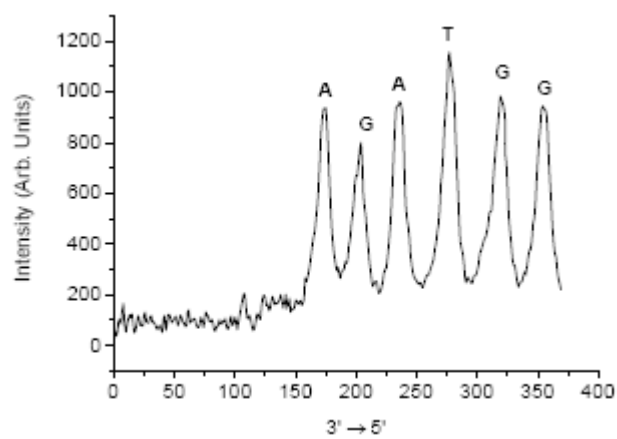
## **Supporting Information: Nucleotide Excision Repair of a DNA Interstrand Cross-Link Resulting From a Nucleotide Radical.**

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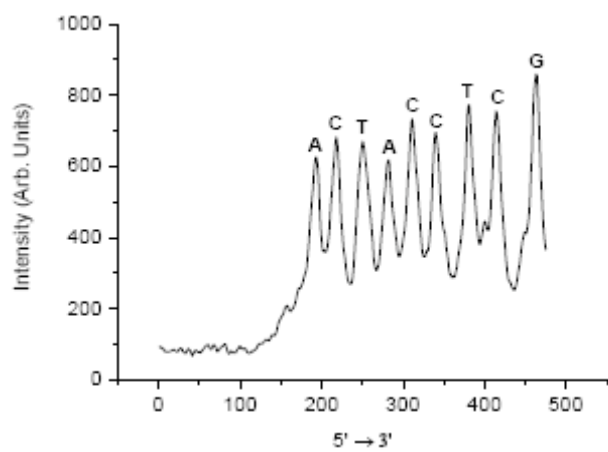
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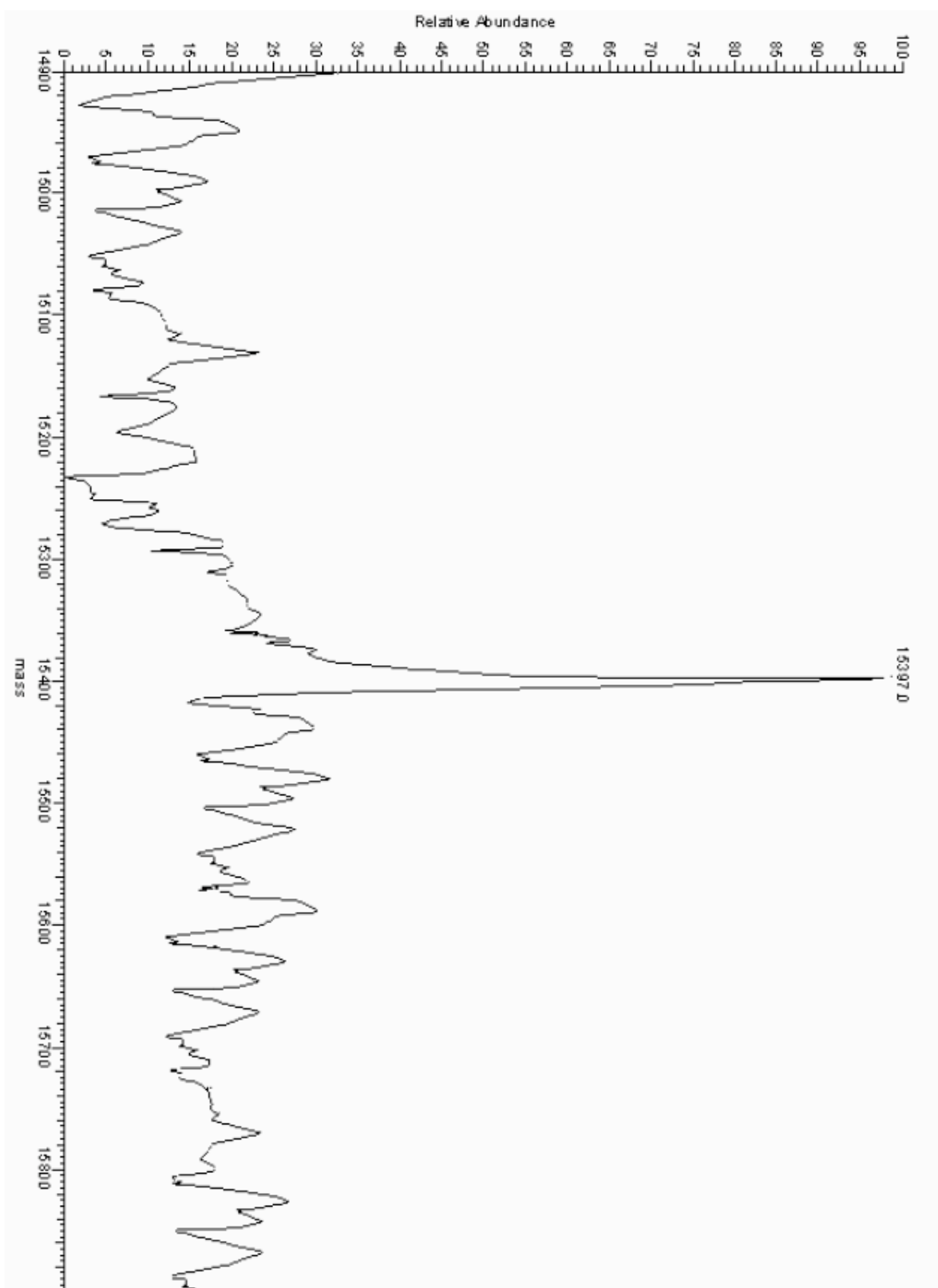


**Supporting Information Figure 1.** Histogram showing hydroxyl radical cleavage of ICL formed from **6** ("Y" containing strand was  $3'$ - $^{32}\text{P}$ -labeled).



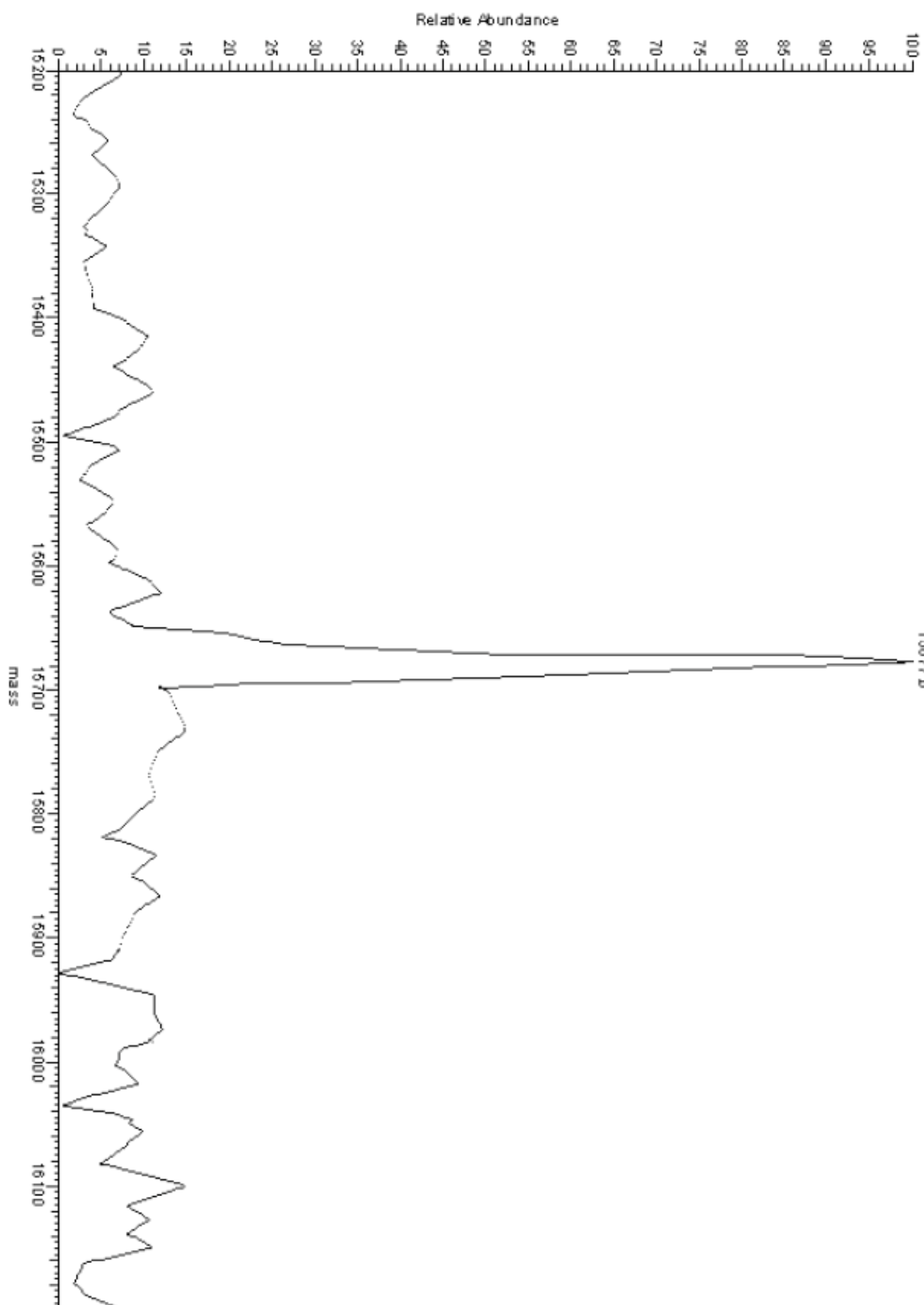
**Supporting Information Figure 2.** Histogram showing hydroxyl radical cleavage of ICL formed from 7 ("Y" containing strand was 3'-<sup>32</sup>P-labeled).

5'-dGAC TAC GTA CTG TTA CGG CTC CAT C3C TAC CGC AAT CAG GCC AGA TCT GC-3'  
Calc. 15396.3, Found 15397.0

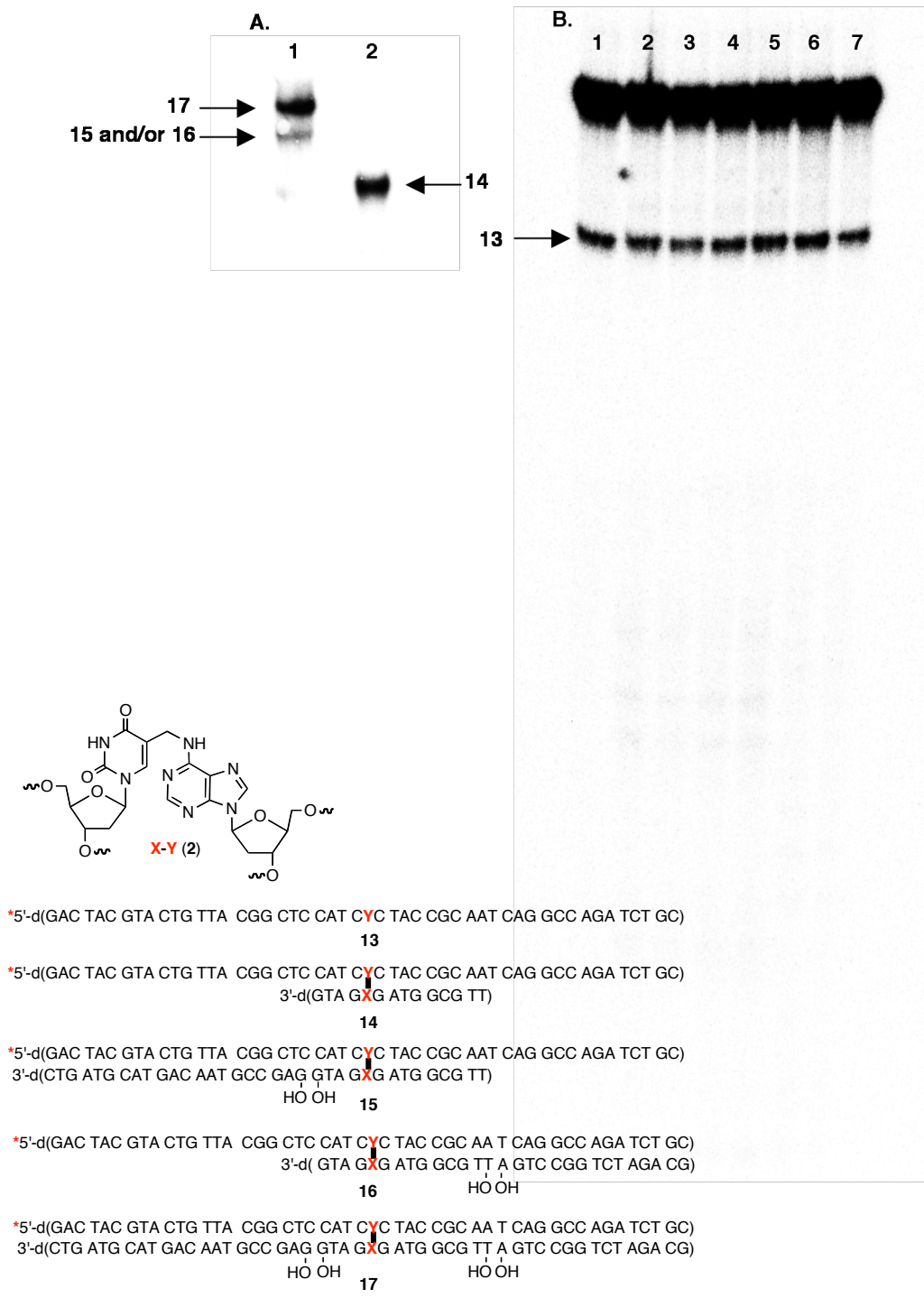


**Supporting Information Figure 3.** ESI-MS of the oligonucleotide containing **3** in **4**.

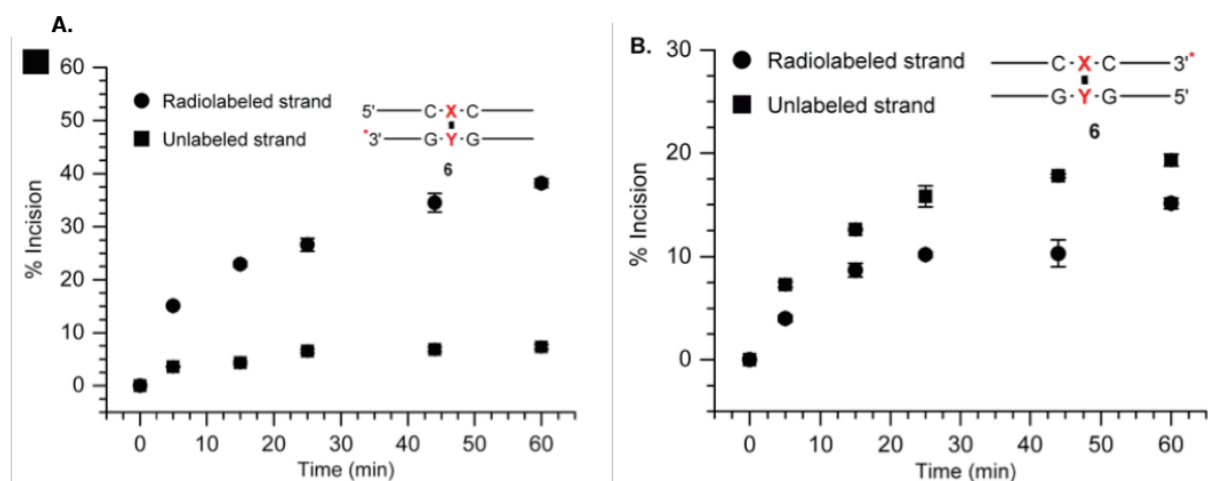
3'-DCTG ATG CAT GAC AAT GCC GAG GTA G3G ATG GCC TTA GTC CGG TCT AGA CG-5'  
Calc. 15677.2, Found 15677.0



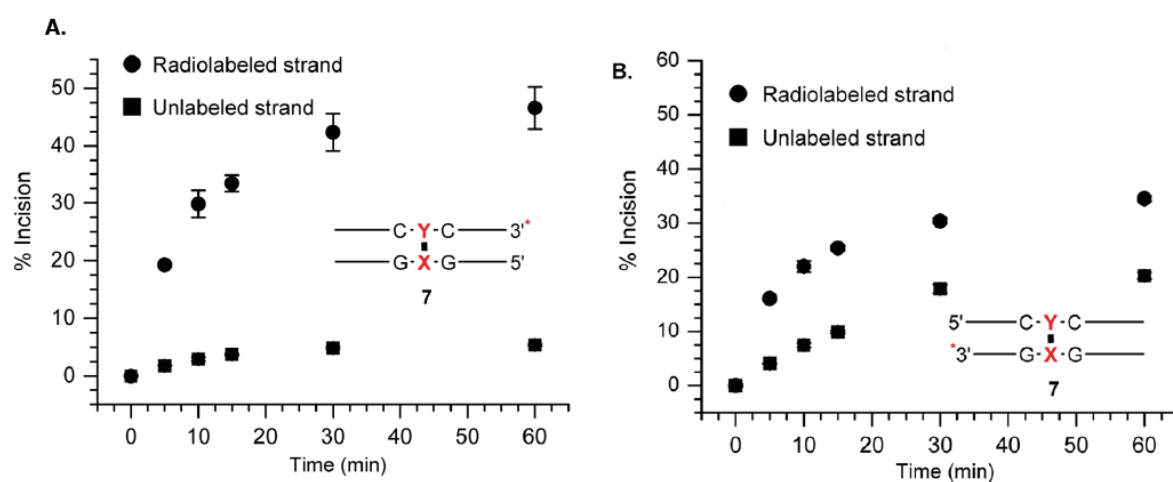
Supporting Information Figure 4. ESI-MS of the oligonucleotide containing **3** in **5**.



**Supporting Information Figure 5.** UvrABC reaction with pre-incised tertiary complex (**17**). A. Non-denaturing PAGE (15%) analysis of independently prepared **17**. Lane 1, hybridized material; Lane 2, dehybridized **14** (independently synthesized and purified). B. UvrABC reaction analyzed by 20% denaturing PAGE. All reactions were run at 55 °C for 1 h. Lanes 1 and 6, **17** incubated without enzyme; Lanes 2-5, **17** + UvrABC (UvrA (20 nM), UvrB (100 nM), UvrC (50 nM)); Lane 7, **17**, no incubation. \* = Radiolabel; **13**, single-stranded decomposition product of **17**; **14**, fully dehybridized **17**; **15**, **16**, partially dehybridized **17**.



**Supporting Information Figure 6.** Time course of UvrABC incision of  $^{32}\text{P}$ -6 in which A. 3'-terminus of "Y" strand is labeled and B. 3'-terminus of "X" strand is labeled.  $^{32}\text{P}$ -Labeled terminus is indicated by \*.



**Supporting Information Figure 7.** Time course of UvrABC incision of  $^{32}\text{P}$ -7 in which A. 3'-terminus of "Y" strand is labeled and B. 3'-terminus of "X" strand is labeled.  $^{32}\text{P}$ -Labeled terminus is indicated by \*.