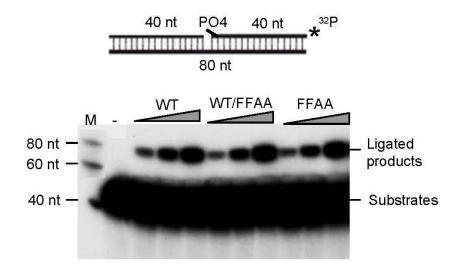
## Supplementary information, Figure S3



**Figure S3** FFAA nuclease extracts (NEs) had similar ligation activities to the WT NEs on the nicked DNA substrates. To assay the ligation activity, we prepared a 3' end <sup>32</sup>P-labeled nick substrate (upper panel). The downstream oligo nucleotide was phosphorylated to allow a simple DNA ligation reaction. Nuclear extracts (0.25  $\mu$ g, 0.5  $\mu$ g, or 1  $\mu$ g) of the indicated cells were incubated with the indicated DNA substrates (1 pmol). All reactions were carried out at 37 °C for 15 min and analyzed by 15% denaturing PAGE.