



**Figure S2: Different DNA polymerases can be used during the second nick translation.** *E. coli* DNA polymerase I (New England Biolabs) can be used in place of *Taq* DNA polymerase during nick translation with dNTPs and biotin-dUTP. Sequencing peaks are wider with Pol I when nearly identical protocols are used (the only difference being Pol I incubates at 37 °C), however if this is undesirable a shorter incubation time will result in more narrow peaks. Use of Pol I could potentially lead to lower background noise since, unlike *Taq*, it has 3'→5' exonuclease 'proofreading' activity that results in a lower observed base misincorporation rate.