A

JS154

5′-ACC TCC CAT TCC TGA TTC AGT CAC TG-3′

JS155

5′-ACG GAG GGA ATC GGA GGT C-3′

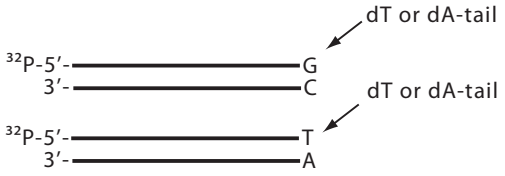
JS156

5′-CAG TGA CTG AAT CAG GAA TGG GAG GT-3′

JS157

5′-GA CCT CCG ATT CCC TCC GT-3′

B



C

	32P-5′----------G-3′	32P-5′----------G-3′	32P-5′----------T-3′	32P-5′----------T-3′
Tailing Type	A-Tailing	T-Tailing	A-Tailing	T-Tailing
% Tailed	51%	42%	41%	(ND)

(ND): Not Detected

dT-tailing is less efficient than dA-tailing. (A) Sequence of the oligonucleotides used to test tailing efficiency. **(B)** To test the tailing efficiency when the terminal base is a dG, 10 pmoles of JS154 was first radiolabeled with γ-^{32}P-ATP using T4 polynucleotide kinase and then annealed to 10 pmoles of JS156 by heating to 95 ºC for 1 min and allowing to slowly cool to room temperature (23 ºC). The annealed oligonucleotides were either dA-tailed or dT-tailed with 1mM dATP or dTTP, respectively, at 37 ºC using 15U Klenow^{exo-} (New England Biolabs) according the manufacturer's instructions. After 1 hour, the reaction was heat inactivated at 65 ºC for 20 min and run on a 14% Acrlamide/8M Urea PAGE gel. The radioactive bands were quantified by densitometry and the percent extension was calculated by dividing the amount of radioactivity in the extended band by the total amount of radioactivity in the lane. The tailing efficiency when the terminal base is a dT was determined in the same manner, with the exception that JS157 was radiolabeled with γ-^{32}P-ATP and then subsequently annealed to JS155. **(C)** Table showing the percent of dA and dT tailing. dT-tailing was only slightly less efficient than dA-tailing when the terminal base was a dG (JS154); however, when the terminal base is a dT (JS157), no detectable dT-tailing was observed, whereas ~40% was dA-tailed.