

Activity**Reaction****Substrate**

Kinase forward reaction	<p>The diagram illustrates the kinase forward reaction. At the top, the reactants are ATP (A-P-P-³²P) and a DNA/RNA strand with a 5' OH terminus. The DNA/RNA strand is represented by two horizontal lines with vertical rungs between them. The top line is labeled 5'OH and the bottom line is labeled 3'OH. A blue arrow labeled Mg²⁺ points downwards to the products. The products are ADP (A-P-P) and a DNA/RNA strand where the 5' terminus is now labeled 5'³²P and the 3' terminus is labeled 3'OH.</p>	Single- or double-stranded DNA or RNA with 5' OH termini
Kinase exchange reaction	<p>The diagram illustrates the kinase exchange reaction. At the top, the reactants are ADP (A-P-P) in excess and a DNA/RNA strand with a 5' P terminus. The DNA/RNA strand is represented by two horizontal lines with vertical rungs between them. The top line is labeled 5'P and the bottom line is labeled 3'OH. A blue arrow labeled Mg²⁺ points downwards to the products. The products are ATP (A-P-P-P) and a DNA/RNA strand where the 5' terminus is now labeled 5'³²P and the 3' terminus is labeled 3'OH.</p>	Single- or double-stranded DNA or RNA with 5' OH termini