

DNA Polymerases

GoldBio Polymerases



Polymerase	Mol. Weight	5'→3' Exonuc.	Proof-reading	Thermostability	Fidelity ^a	Processivity	DNA Ends	Applications
DNA Polymerase I	109 kDa	✓	✓	----	$1 \times 10^{-5} - 10^{-7}$	Low	Blunt	<ul style="list-style-type: none"> Excision repair Removal of RNA primer Nick translation 3' DNA end removal or filling
Klenow Fragment	68 kDa	✗	✓	----	$1 \times 10^{-5} - 10^{-7}$	Low	Blunt	<ul style="list-style-type: none"> Double-strand synthesis Filling of 3' ends Primer labeling DNA sequencing
T4 DNA Polymerase Cat # T-412	104 kDa	✗	✓	----	1×10^{-6}	Low	Blunt	<ul style="list-style-type: none"> Filling in 5' ends 3' end labeling/removal Nick translation Mutagenesis
Taq Polymerase Cat # T-514	94 kDa	✓	✗	✓	$1 - 20 \times 10^{-5}$	High	3' A overhang	<ul style="list-style-type: none"> Routine PCR TA cloning Sequencing
Pfu Polymerase Cat # P-665	92 kDa	✗	✓	✓	$1 - 2 \times 10^{-6}$	Low	Blunt	<ul style="list-style-type: none"> Mutation analysis Cloning Sequencing Gene expression analysis
Hot Start Taq DNA Polymerase Cat # T-510	94 kDa	✓	✗	✓	$1 - 20 \times 10^{-5}$	High	3' A overhang	<ul style="list-style-type: none"> Routine PCR Suitable for low amount of template or complex template
Hot Start Pfu DNA Polymerase Cat # P-650	90 kDa	✗	✓	✓	$1 - 2 \times 10^{-6}$	High	Blunt	<ul style="list-style-type: none"> Routine PCR Suitable for low amount of template or complex template

a) Errors/base pair/cycle

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 Rev 1.0