

KOD DNA Polymerase (with dNTP)

Product Information

Cat#	DIA-569
Source	Escherichia coli
Species	Thermococcus kodakaraensis
Description	A high-fidelity thermostable DNA polymerase capable of amplifying DNA fragments up to 6 kb. It possesses 3'→5' exonuclease proofreading activity, providing both high accuracy and high yield. Its extension rate and synthesis efficiency are approximately 5-fold and 10–15-fold higher than Pfu DNA polymerase, allowing rapid and reliable PCR amplification of target DNA.
Optimum pH	6.5
Optimum temperature	75 °C
Unit Definition	One unit of enzyme activity is defined as the amount of enzyme required to incorporate 10 nmol of dNTP into acid-insoluble material in 30 minutes at 75 °C.
Storage	-30 °C to -15 °C
Buffer	50 mM Tris pH 8.0, 500 mM NaCl, 5% Glycerol, 1m MDTT
Applications	Construction of knockout targeting vectors, gene cloning, and synthesis; genomic DNA cloning.
Concentration	1 U/μL
Purity	>90% (SDS-PAGE)
Package	120 U/200 U 10× KOD Buffer (Mg ²⁺): 1000 μL dNTP Mixture (2.5 mM): 350 μL KOD DNA polymerase (1 U/μL): 40 MI