

# KOD DNA Polymerase

Code No. KOD-101

Lot No. \*\*\*\*\*

Storage Store at -20°C

Size 250units

Source : *Escherichia coli* JM109(pKOD1)

Concentration : 2.5 units/ $\mu$ l

Unit Definition : One unit of enzyme is defined as the amount of enzyme that will incorporate 10 nmoles of dNTPs into acid insoluble material in 30 minutes at 75°C.

Assay Condition : 20 mM Tris-HCl(pH7.5 at 25°C)  
8 mM MgCl<sub>2</sub>  
7.5 mM DTT  
2.5  $\mu$ g BSA  
150  $\mu$ M each of dATP,dGTP,dCTP,dTTP(a mix of unlabeled and [<sup>3</sup>H]-dTTP)  
7.5  $\mu$ g activated calf thymus DNA per 50  $\mu$ l reaction

Storage Buffer : 50 % Glycerol  
50 mM Tris-HCl(pH8.0 at 25°C)  
0.1 mM EDTA  
1 mM DTT  
0.1 % Tween-20  
0.1 % Nonidet P-40

KOD DNA Polymerase : 60 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>  
10 × PCR Buffer #1 : 100 mM KCl  
1.2 M Tris-HCl(pH8.0 at 25°C)  
1 % Triton X-100  
0.01 % BSA

KOD DNA Polymerase : 60 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>  
10 × PCR Buffer #2 : 100 mM KCl  
1.2 M Tris-HCl(pH8.8 at 25°C)  
1 % Triton X-100  
0.01 % BSA

Magnesium Chloride : 25 mM MgCl<sub>2</sub>(1~4mM(final concentration)are recommended)

dNTPs : 2 mM dATP,dGTP,dCTP,dTTP each

Quality Control

1. Nicking Activity : When 15 units of this enzyme were incubated with 1  $\mu$ g of pBR322 for 4 hours at 75°C, no nicking activity was observed after agarose gel electrophoresis.

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