

# KOD -Plus- Ver.2

Code No. KOD-211

Lot No.

Size 200units

Concentration : KOD DNA polymerase 1.0 unit/ $\mu$ l  
 anti-KOD DNA polymerase antibody 1.6 mg/ml

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  
 0.001 % Tween-20  
 0.001 % Nonidet P-40

Materials Provided 10x PCR Buffer for KOD -Plus- Ver.2  
 25mM MgSO<sub>4</sub>  
 dNTPs : 2mM dATP,dGTP,dCTP,dTTP each

## Quality Control

- 1.Nicking Activity : When 15units 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.
- 2.PCR Assay : The 6.8 kb cDNA fragment of DNA Polymerase  $\epsilon$  gene could be amplified from HeLa total RNA reverse transcript.

This enzyme is produced as recombinant in *E.coli* and has very high amplification efficiency. Therefore, there is a possibility to amplify *E.coli* genomic DNA when using rRNA primers



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