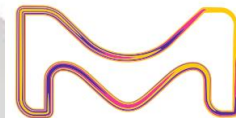


**Promo! BOGO For KOD Hot Start DNA Polymerase**



## **KOD Hot Start DNA Polymerase**

**For Increased Specificity and Convenient PCR Setup.**

**Limited Time Special Offer!**

**Buy One, Get One FREE on KOD Hot Start Polymerase!**

**Valid Until 12/31/2018!**

### **Features**

- High accuracy, yield, and processivity compared to most proofreading DNA polymerases
- Amplifies genomic DNA templates up to 12 kb; plasmid and lambda DNA templates up to 21 kb
- Eliminates mispriming and primer-dimer formation
- Inhibition of exonuclease activity at room temperature reduces primer degradation
- Convenient ambient-temperature setup compatible with automation
- Optimal KOD Hot Start Buffer for robust PCR performance with a wide range of targets
- Compatible with site-directed mutagenesis protocols

**KOD Hot Start Polymerase 200U (Cat# 71086-3)**

**To Redeem, Send Proof Of Purchase And Shipping Address To:**

**Jill Clouse Faulkner**

**Senior Research Sales Specialist**

**[Jill.clouse@milliporesigma.com](mailto:Jill.clouse@milliporesigma.com)**

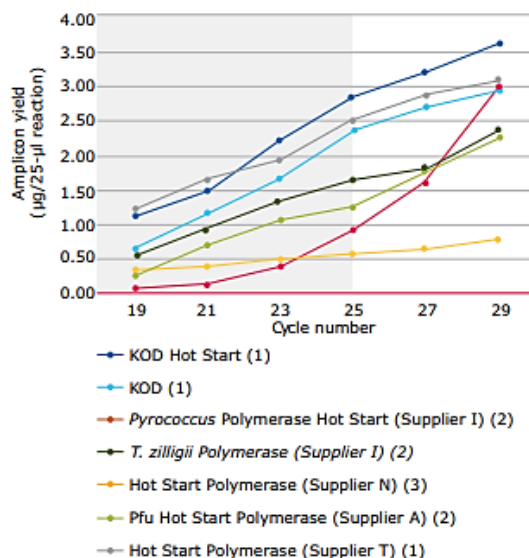
**410-200-5397**

KOD Hot Start DNA Polymerase is a premixed complex of high-fidelity KOD DNA Polymerase and two monoclonal antibodies that inhibit the DNA polymerase and 3'→5' exonuclease activities at ambient temperatures<sup>1</sup>.

KOD Hot Start Polymerase combines high fidelity with fast, high-yielding DNA amplification compared to polymerases from other suppliers.

### 1. Mizuguchi, H et al. J Biochem (Tokyo). 1999; 126:762.

	Cycle Profile A	Cycle Profile B	Cycle Profile C	Cycle Profile D
Initial denaturation	98 °C 30 s	94 °C 2 min	95 °C 2 min	95 °C 2 min
29 cycles	98 °C 10 s	94 °C 15 s	95 °C 20 s	95 °C 20 s
	55 °C 20 s	52 °C 20 s	55 °C 20 s	55 °C 10 s
	72 °C 30 s	68 °C 60 s	72 °C 30 s	70 °C 15 s
Final extension	72 °C 5 min	68 °C 5 min	72 °C 3 min	N/A

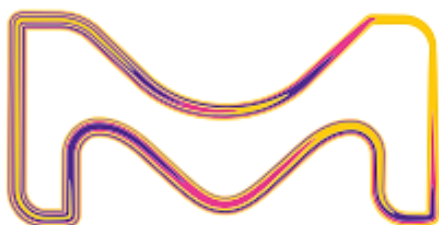


KOD polymerase yields more product in fewer cycles compared to other PCR enzymes. Yields were determined by PicoGreen® analysis after 19, 21, 23, 25, 27, and 29 cycles for all 4 cycling profiles. The best yield data for each enzyme, from any cycling profile, were graphed. The cycling profile that gave the best yield is identified in parentheses. The shaded area highlights yields in cycles 19-25, which are most preferred for cloning. KOD-HS DNA polymerase outperformed the competition.

### Ultra High Fidelity with KOD Hot Start DNA Polymerase

DNA Polymerase	Number of Colonies		Percentage of Mutants	
	Total	Mutant	Mutation Frequency (%)	
KOD Hot Start	51200	51	0.10	
Enhanced Pfu Polymerase (Supplier A)	49900	53	0.11	
Pfu Polymerase (Supplier A)	65900	164	0.25	
Taq	7000	354	5.1	
Mutation Frequency: (Number of mutant colonies/Number of total colonies) × 100%				

The fidelity of replication was measured as the mutation frequency in PCR products using a modified rpsL+ fidelity assay (Kitabayashi 2002, Fujii 1999).



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