

GDSIyo Hotstart Taq Polymerase

	P1241	P1242	P1243
	250U	1,000U	5,000U

GDSIyo Hotstart Taq Polymerase

Taq DNA

PCR

PCR

GDSIyo Hotstart Taq Polymerase

5'-3'

3'-5'

GDSIyo Hotstart Taq Polymerase

3' - dA

Component	P1241	P1242	P1243
GDSIyo Hotstart Taq Polymerase (5U/μl)	50 μl	200 μl	1 ml
10× Hotstart Buffer (dNTP free, Mg ²⁺ free)*	0.5 ml	1 ml × 2	10 ml
MgCl ₂ (25mM)	1 ml	1 ml × 4	20 ml

* Mg²⁺ plus

U

DNA

/

74

30 min

10 nmol

-20

PCR

DNA

1.

Ordinal	Component	50-μl rxn	Final conc.
1	10× Hotstart Buffer dNTP free, Mg ²⁺ free	5 μl	1×
2	MgCl ₂ (25mM)	2-8 μl	1.0-4.0 mM
3	dNTPs 2.5mM	4 μl	0.2 mM
4	upstream primer (10 μM) ^[1]	2 μl	0.4 μM
5	downstream primer (10 μM) ^[1]	2 μl	0.4 μM
6	GDSIyo Hotstart Taq Polymerase (5U/μl) ^[2]	0.25-0.5 μl	1.25-2.5U
7	template DNA ^[3]	1-4 μl	<1 μg
8	Nuclease-free Water ^[4]	To 50 μl	-

[1] 0.1-1 μM

[2] DNA

[3] DNA 50 μl

Template	Human DNA	λDNA	Ecoli DNA	DNA
Dosage	0.1μg-1μg	0.5ng-5ng	10ng-100ng	0.1ng-10ng

[4] Cat. # P9021/P9022/P9023

2. PCR

2-step PCR:

Stage	Temperature	Time	Number of Cycles
Initial Denaturation	95°C	5 min	1
Denaturation	95°C	10-20 sec	35-50

Annealing & Extension	60°C	20-60 sec	
Final Extension	72°C	5-10 min	1

3-step PCR:

Stage	Temperature	Time	Number of Cycles
Initial Denaturation	95°C	5 min	1
Denaturation	95°C	10-20 sec	35-50
Annealing	56-64°C	10-30 sec	
Extension	72°C	10-60 sec	
Final Extension	72°C	5-10 min	1