Hotstart Taq DNA Polymerase

Storage Conditions: Store at -20ºC. It is stable a year from the date of receipt under storage condition.

Applications: Primer extension: PCR reaction..

Quality Control: Free of endonucleases and exonucleases.

Description: Hotstart *Taq* DNA polymerase is a modified thermostable enzyme that possesses a non-processive 5'-3' polymerase. The source of this enzyme is an *E.coli* strain that carries the Taq DNA Polymerase gene from Thermus aquaticus YTI.

Storage buffer: 50 mM Tris pH 8.0, 100 mM NaCl, 1 mM DTT, 50% glycerol, 0.1 mM EDTA, 1% TritonX-100.

Reaction buffer (10X): Tris pH 8.3, $MgCl_2$ and KCL at 5 units/µl

Unit definition: One unit is defined as the amount of enzyme required to incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 75°C.

Reaction conditions for 50 µl reaction

Components	Volume (µl /reaction)	Final concentration
Hot Start PCR buffer	5	10X
dNTP	4	10 mM
Hot Start Taq	0.5	
H_2O	x	
Primers	x	
DNA template	x	10 ng- 5 µg
Total volume	50 µl	

General cycling conditions:

	Hot Start activation	25-40 CYCLES			Final Extension	Hold
		Denaturation	Annealing	Extension		
Time	10 min.	30 sec.	30 sec. – 1 min	1 min/kb	5 min.	-
Temp.	95 ºC	95 ºC	50 – 65 ºC	72 ºC	72 ºC	4ºC

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