BioReady Taq pac.

Kit Components

Cat#	BSA09S2	BSA09M2
Components	**200units**	**500units**
10 × Reaction Buffer (with 15mM $MgCl_2$)	500µl	1000µl
BioReady Taq （5U/µl）	100µl	200µl
2.5mM dNTP Mixture	350µl	800µl
25mM $MgCl_2$	500µl	500µl
6×loading dye	300 µ l	500 µ l
ddH_2O	1250µl	1250µl×2

Description

BioReady Taq is a highly pure, thermostable recombinant DNA polymerase encoded by a modified gene from *Thermus aquaticus* species and expressed in E.coli. Its recombinant nature ensures utmost purity, reproducibility and processivity. BioReady Taq processes an initial 5''→3' exonuclease activity and lacks 3'→5'exonuclease activity. The enzyme leaves a single 3'-nucleotide overhang that make the products suitable for cloning by TA vector system. BioReady Taq provides a thermostability that meets the requirements of specialized PCR applications.

Physical purity

BioReady Taq is determined to be>90% pure as judged by SDS-PAGE gels with Coomassie brilliant blue staining.

Endonuclease Assay

One microgram of super coiled plasmid DNA (pUC18) is incubated with 5 units of BioReady Taq for 8 hours at 45℃ and 8 hours at 70℃ in 1× reaction buffer. Following incubation, the DNA is visualized as a single band an ethidium bromide-stained agarose gel.

Exonuclease Assay

One microgram of lambda DNA and 1ug lambda/HindIII DNA are incubated with 5 units of BioReady Taq for 8 hours at 45℃and 8 hours at 70℃ in 1× reaction buffer. Following incubation, the DNA is visualized as a single band an ethidium bromide-stained agarose gel.

Functional Assay

BioReady Taq is tested for performance in the polymerase chain reaction using 2.5 units of enzyme to amplify a lambda DNA (0.5kb, 1.0kb and 3kb) and beta-globin partial fragment (408bp) of human. The resulting PCR product is visualized as a single band an ethidium bromide –stained agarose gel.

Unit Definition

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acid-insoluble form within 30 min at 72℃ TAPS assay condition.

Storage buffer

20 mM Tris-HCl (pH8.0 at 25℃), 100 mM KCl ,0.1mM DDT, 50% Glycerol, 0.5% Tween 20 and 0.5%NP-40.

Reaction buffer: 10X Reaction buffer with magnesium [proprietary formulation]

Applications

Routine PCR, TA cloning, RT-PCR, Multiplex PCR, PCR-SSCP, PCR-RFLP and PCR-RAPD, etc.

Storage temperature

Store at -20℃. Avoid exposure to frequent temperature changes.

General reaction mix by combining the indicated components:

10 x Buffer	10 µl
$MgCl_2$ (25mM)	Xµl
dNTP Mixture	8 µl
Sense primer (10 µM)	1-5 µl
Antisense primer (10 µM)	1-5 µl
BioReady Taq	0.5 µl(2.5units)
Template DNA	10-500 ng
ddH_2O	up to 100 µl

General reaction condition:

94℃	3-5min	
94℃	30s	30-40cycles
50-65℃	30s	
72 ℃	1kb/min	
72 ℃	5min	

Company Infomation

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