Taq Blend with Pfu (+ dNTPs)

02-120　200 U ,　02-120-5　5 x 200 U

Taq Blend with Pfu is optimized blend of Taq and Pfu DNA polymerases. The proof-reading 3'→5' exonuclease activity of Pfu increases the fidelity and robust amplification of Taq DNA polymerase. The reaction buffer has been formulated for robust yields and long PCR.

General composition of PCR reaction mixture (total 50µl)	
Taq Blend with *Pfu* (5 unit/µl)	* 0.25 µl
5x Reaction Buffer (Taq Blend with *Pfu*)	10µl
2.5mM (each) dNTPs	4 µl
Template	<500 ng
Primer 1	0.2～1.0 µM (final conc.)
Primer 2	0.2～1.0 µM (final conc.)
Sterile distilled water	up to 50 µl

*Use of excess amount is not recommended

Storage Buffer：35 mM Tris-HCl (pH 8.0), 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50 % glycerol, 0.75 %Tween-20, 0.75 % Igepal CA-630

Store at：-20℃

Concentration: 5 units/ul,

Purity: Greater than 95% purity as determined by SDS-PAGE (CBB staining) .
The absence of endonucleases 3→5amplification was attained with λ DNA template was confirmed.

PCR Test: Good amplification result was obtained in PCR reaction using λ phage DNA as a template (Fig.2).

Quality assurance：Amplification was obtained in PCR reaction.

Reagents Supplied with Enzyme:
1) 5 x Reaction buffer for Taq Blend with Pfu　(02-Blb　2ml)
2) dNTPs (2.5 mM each)　(02-Dnt　640ul)

Experimental Example

Robustness of Taq Blend with Taq as compared Taq Economy.

PCR conditions

94℃　1 min　→　98℃　5 sec
　　68℃　4-20 min　(30 cycles)

(extention time at 68℃)
2-8kbp:4min　10-14kbp:7min　16-18kbp:10min　20-35kbp:20min

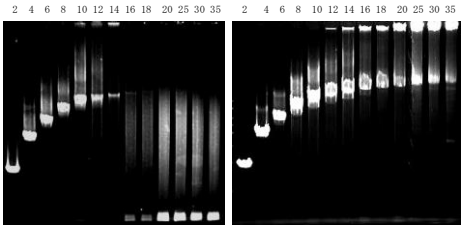

Fig.1　Fig.2

Result
Taq Blend with Pfu could amplify up to 35 kb template while Taq could amplify up to14kb.