

Catalog number	C15035-1600U / C15035-8000U		
Package & Component	Cat.	Name	Amount
	C15035-1600U	Bst DNA Polymerase (Large Fragment) (Glycerol-Free) (8 U/μL)	1,600 U
		10X Bst DNA Polymerase Reaction Buffer (Mg ²⁺ Free)	1 mL
		100 mM MgSO ₄	1 mL
	C15035-8000U	Bst DNA Polymerase (Large Fragment) (Glycerol-Free) (8 U/μL)	8,000 U
		10X Bst DNA Polymerase Reaction Buffer (Mg ²⁺ Free)	3 x 1 mL
100 mM MgSO ₄		3 x 1 mL	
Description	<p>Bst DNA Polymerase (Large fragment) is an enzyme of <i>Bacillus stearothermophilus</i> DNA polymerase which can catalyze 5' → 3' polymerase activity but lacks 5' → 3' exonuclease activity. Bst DNA Polymerase offers strand displacement capabilities, making it ideal for isothermal amplification. The enzyme formulation does not contain glycerol and is compatible for further lyophilization process.</p>		
Source	Escherichia coli		
Purity	>98% as determined by SDS-PAGE analysis.		
Unit Definition	One unit is defined as the amount of the enzyme incorporates 10 nmol of dNTP into acid-insoluble product in 30 minutes at 65°C.		
Storage	Stored at -20°C. Avoid repeated freeze/thaw cycles.		

LAMP reaction recipe:

- Place all required reagents **on ice** and add each of them following the order suggested below.

Manuel	Component	Amount	Final concentration
	10X Bst DNA Polymerase Reaction Buffer (Mg²⁺ free)	2.5 μL	1X
	100 mM MgSO₄	0.5-2.5 μL	2-10 mM

10 mM dNTP mix	3.5 μ L	1.4 mM each
10X FIP/BIP primers	1 μ L	1.6 μ M
10X F3/B3 primers	1 μ L	0.2 μ M
10X LoopF/B primers	1 μ L	0.8 μ M
DNA template	X μ L	10 copies or more
Nuclease-Free H₂O	Y μ L	-
Bst DNA Polymerase (Large Fraction) (Glycerol-Free) (8 U/μL)	1 μ L	8 U/rxn
Total reaction volume	25 μ L	-

2. Gently mix the reaction thoroughly to achieve uniform distribution.
3. Incubate at 65°C for 30-60 minutes.
4. MgSO₄ (2-10 mM), Bst DNA Polymerase (40-320 U/mL) and temperature (50-65 °C) can be adjusted for optimal results.
5. Reaction preparations may be scaled up or down proportionately.

Notes

It is not recommended to perform reaction above 70 °C. Bst DNA Polymerase cannot be used for thermal cycle sequencing.

For Research Use Only.