

Lolina A/S

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Product Specification

Product	Lolina® Bst Plus DNA Polymerase (40 U/μL)
Catalog No.	NaM702001
Storage conditions	Store at -25 ~ -15°C, valid for 2 year.
Enzyme Storage Buffer	10 mM Tris-HCl, 50 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.1% Triton X-100, 50% Glycerol pH 7.5 @ 25°C
Heat Inactivation	85°C, 5 min
Unit Definition	1 unit (U) is defined as the amount of enzyme required to incorporate 10 nmol of dNTPs into acid-insoluble precipitate under the reaction conditions of 65°C for 30 minutes.
Product Applications	This product is suitable for various isothermal amplification reactions such as LAMP, CPA, RCA, etc.

Product description

Lolina® Bst Plus DNA Polymerase is derived from *Thermophilic Geobacillus sp* DNA Polymerase I, lacking 5'-3' exonuclease activity. The enzyme has stronger 5'-3' DNA polymerase activity, strand displacement activity and dUTP tolerance, which is more suitable for anti-pollution isothermal amplification reactions, such as LAMP, CPA, etc.

CAT	Components Name	Size	
		8,000 U	40,000 U
NaM702001-A	Lolina® Bst Plus DNA Polymerase (40 U/μL)	200 μL	1 mL
NaM702001-B	10× Lolina® Bst Plus DNA Polymerase Buffer	1 mL	3 × 1 mL
NaM702001-C	100 mM MgSO ₄	1 mL	3 × 1 mL

Instructions

1. Reaction System

Components	Volume (µL)	Final Concentration
10x Reaction Buffer	2.5	1 x
100 mmol/L MgSO ₄	0.75	3 mmol/L + 2 mmol/L in buffer = 5 mmol/L
dNTP Mix (25 mmol/L each)	1.4	1.4 mmol/L each
dUTP (25 mmol/L) (optional)	1.4	1.4 mmol/L
UDGase (1U/µl) (optional)	1	0.04 U
DNA	10 ng – 1µg	-
10x Primers	2.5	-
Lolina® Bst Plus DNA Polymerase (40 U/µl)	1	1.6 U/µl
ddH ₂ O	to 25	

[Note]:

- The amount of Lolina® Bst Plus DNA Polymerase can be adjusted and optimized according to different experiments.
- 10× Reaction Buffer: 200 mM Tris-HCl, 500 mM KCl, 100 mM (NH₄)₂SO₄, 20 mM MgSO₄, 1% Tween-20, pH 8.8 @ 25°C.
- The Mg²⁺ concentration can be adjusted between 4 – 10 mM according to different experiments.
- 10× Primers: 16 µM FIP/BIP, 2 µM F3/B3, 4 µM Loop F/B each.

2. Reaction program

Temp.	Time	Function
25 - 37°C	5 – 10 min	Degradation of templates containing uracil (optional)
65°C	30 – 60 min	Reaction
85°C	5 min	Inactivation

Notes

- The enzyme should be stored in a cooler or on ice during use and immediately placed at -20°C after use. This product is for research use only.
- For your safety and health, please wear a lab coat and disposable gloves during operation.