

# HUWEL Bst Enzy

Bst DNA Polymerase  
(Minus Exonuclease)



## Description

- Bst DNA polymerase is the large fragment (67 kDa) polymerase from *Bacillus stearothermophilus*.
- It has 5' → 3' polymerase and double-strand specific 5' → 3' exonuclease activity, but lacks 3' → 5' exonuclease activity.

## Source

- Isolated from a recombinant source, an *E. coli* strain that contains the optimized gene from *Bacillus stearothermophilus*.

## Features

- Supplied with HL BstRB (10 X Reaction Buffer)
- Free from *E. coli* DNA
- RNase and DNase free
- Sequencing through problematic secondary structures

## Concentration

8 U/μL

## Applications

- Isothermal DNA amplification by the method of :
  - a. Loop-Mediated Isothermal Amplification (LAMP)
  - b. Whole Genome Amplification (WGA)
  - c. Ramification Amplification (RAM)
  - d. Multiple Displacement Amplification (MDA)
- Random-primed DNA labeling
- Labeling by fill-in 5'-overhangs of dsDNA
- Rapid Sequencing from nanogram amounts of DNA template
- Useful in next generation sequencing.

- Catalyzes the polymerization of nucleotides into duplex DNA in the 5'→3' direction in the presence of magnesium ions
- Lacks the 5'→3' exonuclease activity, while retaining the polymerase activity
- Broad activity range; can replace mesophilic polymerases as well as synthesize DNA at high temperatures, therefore suitable for amplification of difficult DNA templates, including repetitive sequences, GC-rich regions and problematic secondary structures
- Can be heat inactivated when exposed to above 80°C for 20 minutes.
- Replicates DNA optimally at 65°C

### Unit definition

One unit is the amount of enzyme required to catalyze the incorporation of 10 nmol of dNTP into acid-insoluble material in 30 minutes at 65°C.

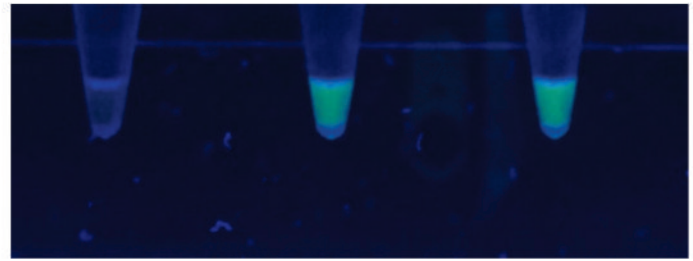
### Limitations:

- Reaction temperatures above 70°C are not recommended.  
Bst DNA polymerase cannot be used for thermal cycle sequencing.

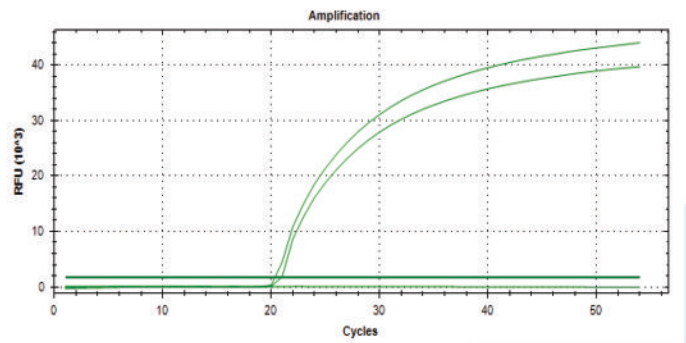
### Storage

Recommended storage condition is -20°C.

## Quality



Signal Under UV Lamp



Amplification pattern in Real Time

## Ordering Information

Cat. No	Units	Enzyme	Buffer
HLBST-0.8KU	800	1 x 100µl	1 x 1.25ml
HLBST-1.6KU	1600	1 x 200µl	2 x 1.25ml
HLBST-5.0KU	5000	1 x 625µl	5 x 1.25ml
HLBST-10KU	10000	1 x 1.25ml	10 x 1.25ml

Ref: Product and technical insert

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- Quantiplus JAK-2 V617>F mutation detection Kit
- Quantiplus BCR-ABL Quantitation Kit
- Quantiplus Dengue genotyping
- Quantiplus JC virus Quantitation Kit
- Quantiplus JE virus detection Kit
- Quantiplus Cryptococcus detection Kit
- Quantiplus Malaria Detection kit
- Quantiplus Toxoplasma Detection kit
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