5’→3’ exonuclease activity. Bst 2.0 WarmStart DNA Polymerase displays improved amplification speed, yield, salt tolerance, and thermostability compared to wild-type Bst DNA Polymerase, Large Fragment.

Source: Bst 2.0 WarmStart DNA Polymerase is prepared from an E. coli strain that expresses the Bst 2.0 DNA Polymerase protein from an inducible promoter.

Applications:
- Isothermal DNA amplification
- Applications requiring strand-displacement DNA synthesis
- DNA sequencing through high GC regions
- Rapid sequencing from nanogram amounts of DNA template

Reagents Supplied with Enzyme:
- Isothermal Amplification Buffer (10X)

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Phosphatase Assay: Incubation of a 200 µl reaction in 1 M Diethanolamine (pH 9.8) and 0.5 mM MgCl2, containing 2.5 mM p-Nitrophenol Phosphate and a minimum of 100 units of Bst 2.0 DNA Polymerase incubated for 4 hours at 37°C yields no detectable phosphatase activity as determined by spectrophotometric analysis of released p-nitrophenol anion at 405 nm.

RNase Activity: Incubation of a 10 µl reaction in 1X NEBuffer 4 containing a minimum of 1 µl of Bst 2.0 WarmStart DNA Polymerase and 40 ng of F-300 RNA transcript incubated for 16 hours at 37°C results in < 10% substrate degradation as determined by gel electrophoresis using fluorescent detection.

Enzyme Properties
Activity in NEBuffers
ThermoPol Buffer 125%
Unit Assay Conditions 100%
NEBuffer 1 25%
NEBuffer 2 100%
NEBuffer 3 100%
NEBuffer 4 100%
NEBuffer EcoRI 100%

Notes on Use: Bst 2.0 WarmStart DNA Polymerase does not exhibit 3'→5' exonuclease activity. Reaction temperatures above 70°C are not recommended.

Bst 2.0 WarmStart DNA Polymerase cannot be used for thermal cycle sequencing or PCR.

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Companion Products Sold Separately:
Bst 2.0 DNA Polymerase
#M0537S 1,600 units
#M0537L 8,000 units
#M0537M 8,000 units
Bst DNA Polymerase, Large Fragment
#M0275S 1,600 units
#M0275L 8,000 units
#M0275M 8,000 units
Magnesium Sulfate (MgSO4) Solution
#B1003S 6.0 ml
Isothermal Amplification Buffer Pack
#B0537S 6.0 ml
Deoxynucleotide Solution Set
#N0446S 25 µmol each
Deoxynucleotide Solution Mix
#N0447S 8 µmol each
#N0447L 40 µmol each

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