

# End-Point PCR Applications



# Azura ExtremeTaq

Azura ExtremeTaq DNA Polymerase is a high-performance DNA polymerase complex comprised of Azura HS Taq and a proof-reading polymerase in a unique balance which is ideally suited to problematic GC- and AT-rich genomic DNA amplification.

Azura ExtremeTaq generates extremely high DNA yields and 3'-A overhangs which are ideal for direct integration into TA cloning vectors. In addition, the enzyme delivers exceptional PCR sensitivity in low copy assays with 4-fold higher fidelity than wild-type *Taq* polymerase. The DNA Polymerase is provided in a simple two-component format for ease of use, minimal handling and greater reproducibility. Azura ExtremeTaq DNA Polymerase is supplied with a complete 5x reaction buffer inclusive of GC enhancers, optimal levels of dNTP and MgCl<sub>2</sub>, and a high ionic strength for broad compatibility with amplicon size and complexity. Azura™ ExtremeTaq is also available as a ready-to-use 2x mix formulation containing all of the components including proprietary enhancers for trouble-free PCR reaction assembly while delivering the same unique balance of PCR sensitivity, high fidelity and versatility. The pre-optimized Azura ExtremeTaq 2x Mix is supplied in a single tube, reducing the number of pipetting steps while improving throughput and reproducibility.

## Applications

- PCR of difficult DNA templates (high GC and AT content)
- TA Cloning
- Low-copy PCR
- High-fidelity PCR (library amplification)
- Long PCR up to 10kb.

## Assay Flexibility

Optimized PCR blend provides robust Hot-Start PCR in a wide range of applications with 4-fold higher fidelity than wild-type Taq Polymerase.

## Robust Amplification

Provides greater yields with lower enzyme amounts than other DNA polymerases, even in low-copy PCR reactions and in the presence of common PCR inhibitors.

## Convenience of Minimal Optimization

ExtremeTaq DNA Polymerase is provided with a complete 5x reaction buffer inclusive of GC enhancers, optimal levels of dNTP and MgCl<sub>2</sub>, and a high ionic strength for broad compatibility with amplicon size and complexity. The enzyme blend is also available in a single-tube 2x format for convenience and reproducibility.

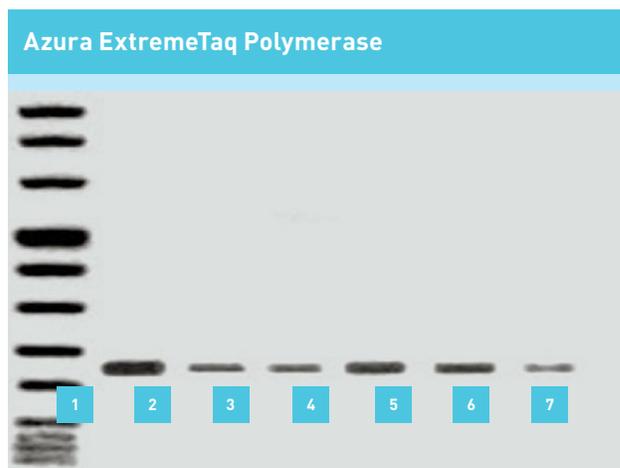


Fig 1. Azura ExtremeTaq Polymerase provides highly efficient PCR of GC-rich DNA.

Azura ExtremeTaq is ideal for use with complex templates comprised of high GC sequence content. Human chromosome 19 (73% GC-rich, 860bp fragment) was amplified with 1 unit Azura Extreme Taq:

- Lane 1: MW Marker
- Lanes 2 – 4: 50ng, 5ng, 2.5ng template DNA respectively.
- Lanes 5 – 8: 50ng, 25ng, 5ng and 1ng template DNA in the presence of 5µl crude tissue lysate (PCR inhibitors).

Product	Pack Size	Catalog No.	Price
ExtremeTaq DNA Polymerase	250u (5u/µl)	AZ-1802	\$145
ExtremeTaq DNA Polymerase	1000u (5u/µl)	AZ-1810	\$465
ExtremeTaq 2x Mix	200 x 50µl Reactions	AZ-1820	\$190
ExtremeTaq 2x Mix	1000 x 50µl Reactions	AZ-1850	\$815