



ExtremeTaq™ HiFi Mix

The Universal All-In-One Mix for Everyday PCR

ExtremeTaq™ HiFi Mix is an optimized 2x master-mix comprised of an enhanced *Taq* DNA Polymerase, optimized reaction buffer, $MgCl_2$, and ultra-pure dNTPs. ExtremeTaq™ HiFi Red mix also contains an inert red gel-loading dye. These versatile master-mixes are ideally suited to all routine end-point PCR applications and challenging DNA targets such as complex GC-rich DNA and low-copy number samples.

The formulation contains *Taq* Polymerase, proprietary enhancers, hot-start antibodies, and a proof-reading component for trouble-free PCR reaction assembly and consistent performance. ExtremeTaq™ HiFi mix delivers a unique balance of PCR sensitivity, high fidelity, and value. The ready-to-use ExtremeTaq™ HiFi Red Mix provides excellent performance with plasmid DNA, cDNA and complex mammalian DNA, and exhibits up to 10x higher fidelity than *Taq* polymerase. The highly efficient buffer and hot-start blend provide the ideal conditions for high-performance PCR and inactivity at room temperature, thereby eliminating non-specific amplification.

ExtremeTaq™ HiFi Red Mix contains an inert red gel loading and tracking dye which simplifies downstream gel analysis by allowing samples to be loaded directly in agarose gel wells. The red dye migrates at the rate of 600 bp and 350 bp DNA fragments in 1% and 2% TAE agarose gels, respectively. To enable convenience in most PCR applications and direct-to-gel analysis following amplification, we suggest ExtremeTaq™ HiFi Red Mix. For post-amplification analysis by fluorescence or absorbance without prior DNA purification, ExtremeTaq™ HiFi Mix is recommended.

Applications

- Routine PCR
- Colony PCR
- TA Cloning
- Genotyping
- Low-Copy Number PCR
- PCR of Difficult DNA Templates (GC or AT-rich regions)
- High-Fidelity PCR and Long PCR up to 10 kb

Assay Flexibility and Accuracy

With up to 10x the fidelity of *Taq* Polymerase, our ready-to-use 2x PCR mix provides robust hot-start PCR in a wide range of applications

Robust Amplification

Provides greater yields and specificity than other *Taq* Master-mixes, even in low-copy number assays, long PCR up to 10 kb, and in the presence of common PCR inhibitors

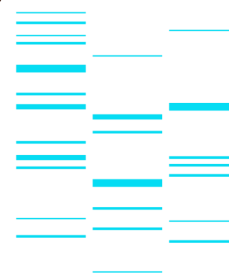
Convenience of Minimal Optimization

ExtremeTaq™ HiFi mix is designed and optimized for ease-of-use and broad compatibility with DNA templates of various lengths and complexity, without the need for $MgCl_2$ optimization

Versatility

High-Performance amplification of DNA extracted from human, animal, plant, bacteria, *C. elegans*, soil and water

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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 Azura ExtremeTaq™:

- 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)

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Products	Pack Size	Catalog No
ExtremeTaq™ HiFi Mix	200 Reactions / 2 x 1.25 mL	AZ-1900
ExtremeTaq™ HiFi Mix	1,000 Reactions / 10 x 1.25 mL	AZ-1901
ExtremeTaq™ HiFi Mix	2,000 Reactions / 20 x 1.25 mL	AZ-1902
ExtremeTaq™ HiFi Red Mix	200 Reactions / 2 x 1.25 mL	AZ-1910
ExtremeTaq™ HiFi Red Mix	1,000 Reactions / 10 x 1.25 mL	AZ-1911
ExtremeTaq™ HiFi Red Mix	2,000 Reactions / 20 x 1.25 mL	AZ-1912
ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	500U	AZ-1905
ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	1000U	AZ-1915
ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	5000U	AZ-1950