

AQ97 HIGH FIDELITY DNA POLYMERASE

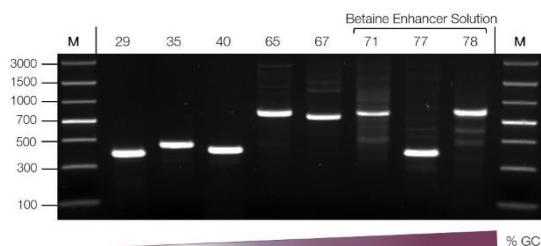


AQ97 High Fidelity DNA Polymerase

- High Fidelity: > 60x *Taq* DNA Polymerase
- High elongation rate: 10 sec/kb
- 3' → 5' proofreading exonuclease activity
- Good coverage on difficult DNA templates with low to high GC content
- Long range capability: 18 kb for gDNA

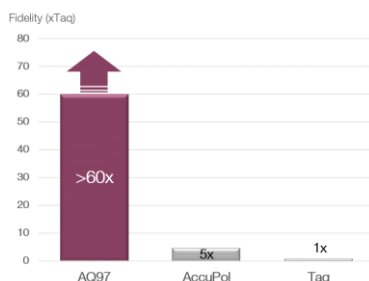
AQ97 High Fidelity DNA Polymerase is a proofreading DNA polymerase with the ability to perform robust amplification of a vast range of difficult targets, including those up to 17.5 kb and with high to low GC content. The fidelity of the polymerase has been measured to >60x *Taq* DNA Polymerase. This polymerase is highly recommended for cloning, mutagenesis and NGS applications.

Robust Amplification



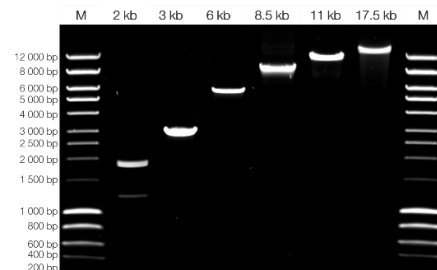
Robust amplification is observed using AQ97 High Fidelity DNA Polymerase on nine human gDNA targets with low to high GC content. Amplification of the targets with 71 – 78 % GC was only successful when Betaine Enhancer Solution was added to the master mix.

Fidelity Study



Fidelity values of AQ97 High Fidelity DNA Polymerase, AccuPol DNA Polymerase and *Taq* DNA Polymerase were measured using a novel NGS-based technology. Due to method limitations it was not possible to estimate more than up to a 60-fold *Taq* fidelity.

Long Range



Amplification of long DNA targets. Six different targets of human genomic DNA ranging from 2 kb and up to 17.5 kb was used for this study.

	Size*	Content	Cat #	
AQ97 High Fidelity DNA Polymerase 2 U/μl	100 Units	1 x 50 μl	A767501	
	500 Units	1 x 250 μl	A767503	
	With 5x AQ97 Buffer and MgCl ₂	1000 Units	2 x 250 μl	A767504
		2500 Units	5 x 250 μl	A767506
AQ97 High Fidelity DNA Polymerase 2x Master Mix 1.5 mM MgCl ₂ final	100 Reactions	2 x 1.25 ml	A770101	
	500 Reactions	10 x 1.25 ml	A770103	
	2500 Reactions	50 x 1.25 ml	A770106	
	5000 Reactions	25 x 5 ml	A770107	
	Betaine Enhancer Solution 5 M		5 x 1 ml	A351104

* AQ97 High Fidelity DNA Polymerase – reaction size is 25 μl (0.5 unit/reaction)
AQ97 High Fidelity DNA Polymerase 2x Master Mix – reaction size is 50 μl