POLYMERASES OF NEW GENERATION

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Elisabeth® Pharmacon

ELIZYME HS FAST

Advantages

- Hot-start technology
- Enzyme inactivation below 65 °C
- Higher speed (with speed 1 s/kb)
- Higher yields under standard and fast PCR conditions
- Increased PCR success rates
- Inhibitor tolerant PCR

Applications

- Routine and multiplex PCR
- Direct PCR from bacterial culture, blood and urine
- Efficient and specific amplification from complex templates including GC-rich and AT-rich sequences
- Sanger sequencing
- TA cloning

Availability

- Polymerase with buffer
- The buffer contains dNTPs, $MgCl_2$ and enhancers (additional $MgCl_2$ is not necessary; the buffer composition has been optimised to maximise PCR success rates)
- Ready Mix
- Ready Mix with loading dye

ELISABETH PHARMACON
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EliZyme™

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ELIZYME HS FAST

EliZyme HS FAST uses hot-start technology to inactivate the enzyme below 65 °C preventing primer-dimer formation and non-specific amplification. DNA polymerase in **EliZyme HS FAST** is inactivated until the initial activation step at 95 °C. **EliZyme HS FAST** is suited for difficult PCR templates. The mix is resistent to PCR inhibitors allowing direct PCR from unprocessed samples including bacterial culture, bacterial colonies, blood and urine.

EliZyme HS FAST is a robust enzyme system suited for routine PCR, multiplex PCR, amplification of DNA for Sanger sequencing and other genotyping applications. The enzyme system is characterised by enhanced PCR speed, yield and specificity. **EliZyme HS FAST** delivers exceptional PCR performance on complex templates including GC-rich and AT-rich sequences. **EliZyme HS FAST Taq DNA Polymerase** has 5'-3' exonuclease activity but no 3'-5' exonuclease (proofreading) activity. The error rate is approximately 1 error per 2.0 x 10^5 nucleotides incorporated. PCR products generated with **EliZyme HS FAST** are A-tailed and may be cloned into TA vectors.

For higher comfort is **EliZyme HS FAST** also available as a 2x ready mix. **EliZyme HS FAST MIX Red** contains a red dye for tracking during agarose gel electrophoresis. It is suitable for direct loading onto agarose gel.

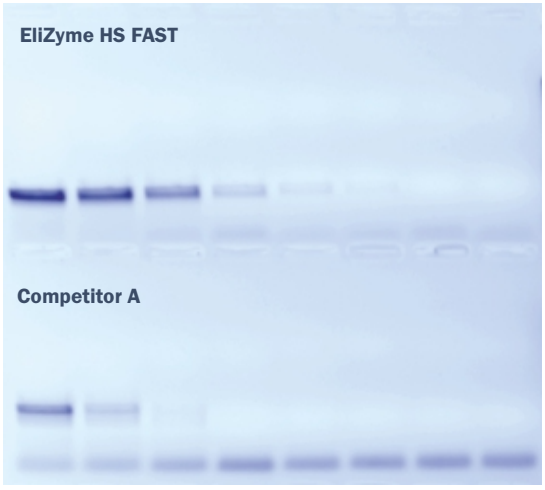

Figure A
Amplification of a 1.2 kb fragment of Beta-Actin under standard cycling conditions from human genomic DNA. Hot-start technology prevents primer-dimer formation. Primer extension redirects DNA polymerase activity from the amplicon of interest leading to reduced sensitivity in the PCR reaction. A 10 fold dilution series of template starting from 100 ng was used. **EliZyme HS FAST** is able to amplify lower concentration DNA template compared with competitor "A".

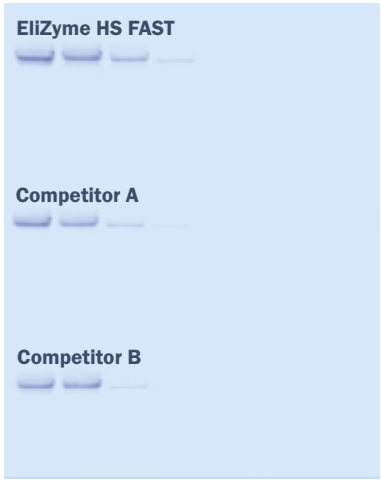

Figure B
Amplification of a 400 bp fragment of Beta-Actin under fast cycling conditions from human genomic DNA. Fast cycling conditions: initial denaturation at 95 °C for 2 minutes, 40 cycles of denaturation at 95 °C for 5 seconds, annealing/extension at 60 °C for 5 seconds. A 10 fold dilution series of template starting from 100 ng was used. **EliZyme HS FAST** performs significantly better than equivalent product from competitor "A" and equivalent product from competitor "B".

AVAILABLE KITS

	Ref. No.	Content	Pack Size
EliZyme HS FAST	EZ5505	1x0,1 ml 5 U/µl + 4x1 ml buffer	500 U
	EZ5510	2x0,1 ml 5 U/µl + 1x8 ml buffer	1000 U
	EZ5520	4x0,1 ml 5 U/µl + 2x8 ml buffer	2000 U
EliZyme HS FAST MIX	EZ5720	5x1 ml mix	200 rxns
	EZ5760	2x7,5 ml mix	600 rxns
EliZyme HS FAST MIX Red	EZ5620	5x1 ml mix	200 rxns
	EZ5660	2x7,5ml mix	600 rxns

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