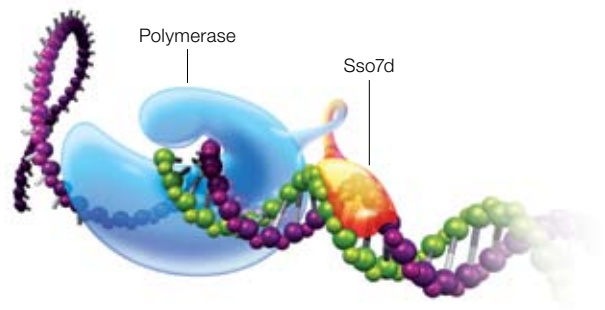


## iProof™ High-Fidelity DNA Polymerase

Bio-Rad's unique iProof high-fidelity DNA polymerase delivers unsurpassed speed and fidelity, with higher yields and fewer reaction failures, for all your PCR needs.

- **Fidelity** — novel proofreading enzyme is the most accurate thermostable polymerase (52-fold more accurate than *Taq*)
- **Speed** — increased processivity dramatically reduces extension steps (15–30 sec/kb) and overall reaction times
- **Length** — large fragments (up to 37 kb) amplified in less time and with less enzyme (0.25–1.0 unit/reaction)



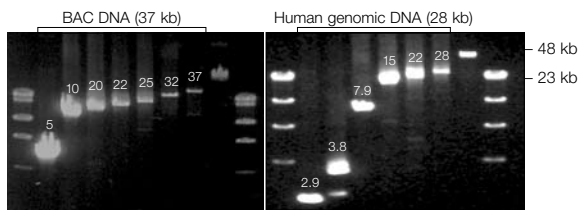
Fusing the double-stranded DNA binding protein Sso7d to iProof polymerase gives it a powerful sliding grip on the replicated DNA.

For more information, visit us on the Web at [www.bio-rad.com/iproof/](http://www.bio-rad.com/iproof/)

**BIO-RAD**

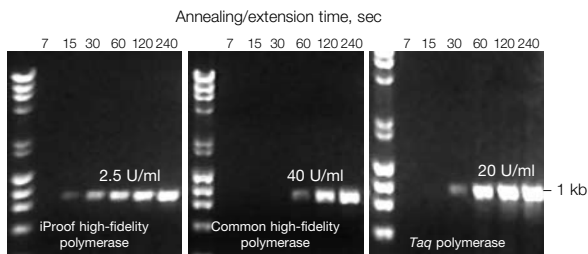
# Unsurpassed Speed and Fidelity for All Your PCR Needs

iProof high-fidelity DNA polymerase consists of a unique *Pyrococcus*-like proofreading enzyme fused to a dsDNA binding protein, Sso7d. This novel technology results in a thermostable polymerase capable of amplifying long products from a variety of DNA templates, while providing the highest fidelity of any available polymerase (52-fold more accurate than *Taq*). iProof polymerase is available in three convenient formats: as a stand-alone enzyme, as an easy-to-use master mix, and in a PCR kit complete with controls.

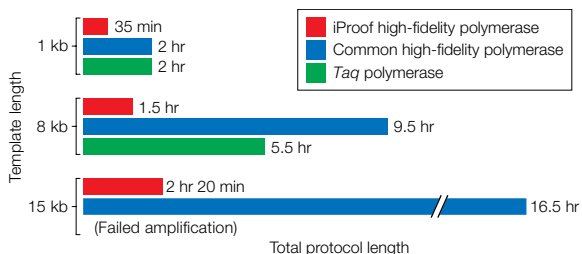


## iProof DNA polymerase amplifies long templates with high yields.

Left, various fragments up to 37 kb in length were amplified from BAC DNA using a combined annealing/extension step of 10 min per cycle and 30 U/ml of iProof polymerase. Right, various sequences up to 28.8 kb were amplified directly from human genomic DNA using 30 U/ml of iProof polymerase in GC buffer with a combined annealing/extension time of 10 min per cycle.



**iProof DNA polymerase delivers high yields with significantly less enzyme.** A 1 kb fragment was amplified from 1.25 pM of  $\lambda$  template DNA in 20 cycles using a combined annealing/extension step of 7–240 sec per cycle. All enzymes were used according to manufacturer recommendations.



**iProof DNA polymerase demonstrates unrivaled speed, leading to dramatically shorter overall reaction times.** The reaction protocol for iProof polymerase was compared to the recommended protocols for two competing polymerases. Each protocol was designed to amplify 1, 8, and 15 kb products in 30 cycles. iProof polymerase reactions used a two-step protocol with combined annealing and extension, while the other reactions used three-step protocols with the minimum recommended extension times. Overall reaction times include temperature ramping times.

## Ordering Information

Catalog #	Description
172-5300	iProof High-Fidelity DNA Polymerase, 2 U/ $\mu$ l, 20 U, includes 5x reaction buffers, MgCl <sub>2</sub> solution, DMSO
172-5301	iProof High-Fidelity DNA Polymerase, 2 U/ $\mu$ l, 100 U
172-5302	iProof High-Fidelity DNA Polymerase, 2 U/ $\mu$ l, 500 U
172-5310	iProof HF Master Mix, 100 x 50 $\mu$ l reactions, includes 2x master mix, DMSO (for highest fidelity with most templates)
172-5311	iProof HF Master Mix, 500 x 50 $\mu$ l reactions
172-5320	iProof GC Master Mix, 100 x 50 $\mu$ l reactions, includes 2x master mix, DMSO (for GC-rich templates)
172-5321	iProof GC Master Mix, 500 x 50 $\mu$ l reactions
172-5330	iProof High-Fidelity PCR Kit, 2 U/ $\mu$ l, 50 U, includes 5x reaction buffers, MgCl <sub>2</sub> solution, DMSO, dNTPs, $\lambda$ DNA, 1.3 and 10 kb primers, DNA standard
172-5331	iProof High-Fidelity PCR Kit, 2 U/ $\mu$ l, 200 U
172-5391	5x iProof HF Buffer
172-5392	5x iProof GC Buffer
172-5393	5x iProof HPLC HF Buffer, detergent-free
172-5394	5x iProof HPLC GC Buffer, detergent-free
170-8870	iTaq™ DNA Polymerase, 5 U/ $\mu$ l, includes 250 U polymerase, 1.25 ml of 10x PCR buffer, 1.25 ml of 50 mM MgCl <sub>2</sub> solution
170-8882	MgCl <sub>2</sub> Solution, 50 mM
170-8874	dNTP Mix, 200 $\mu$ l premixed solution, contains 10 mM each dNTP (dATP, dCTP, dGTP, dTTP)
170-8890	iScript™ cDNA Synthesis Kit, 25 x 20 $\mu$ l reactions, includes 5x iScript reaction mix, iScript reverse transcriptase, nuclease-free water
170-8891	iScript cDNA Synthesis Kit, 100 x 20 $\mu$ l reactions
170-8896	iScript™ Select cDNA Synthesis Kit, 25 x 20 $\mu$ l reactions, includes 5x iScript Select reaction mix, iScript reverse transcriptase, oligo(dT) mix, random primer mix, gene-specific primer (GPS) enhancer solution, nuclease-free water
170-8897	iScript Select cDNA Synthesis Kit, 100 x 20 $\mu$ l reactions

## Thermal Cyclers

185-1096	C1000™ Thermal Cycler With 96-Well Fast Reaction Module, includes thermal cycler chassis, 96-well fast reaction module, USB flash drive, power cord, reagent and consumable samples, instructions
185-1048	C1000 Thermal Cycler With Dual 48/48 Fast Reaction Module, includes thermal cycler chassis, dual 48/48 fast reaction module, USB flash drive, power cord, reagent and consumable samples, instructions
185-1384	C1000 Thermal Cycler With 384-Well Reaction Module, includes thermal cycler chassis, 384-well reaction module, USB flash drive, power cord, reagent and consumable samples, instructions
185-2096	S1000™ Thermal Cycler With 96-Well Fast Reaction Module, includes thermal cycler chassis, 96-well fast reaction module, power cord, reagent and consumable samples, instructions
185-2048	S1000 Thermal Cycler With Dual 48/48 Fast Reaction Module, includes thermal cycler chassis, dual 48/48 fast reaction module, power cord, reagent and consumable samples, instructions
185-2384	S1000 Thermal Cycler With 384-Well Reaction Module, includes thermal cycler chassis, 384-well reaction module, power cord, reagent and consumable samples, instructions

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