

DNA polymerases Scientifix has the right one for you

Scientifix has a range of PCR enzymes available from Takara and Clontech

The enzymes have :

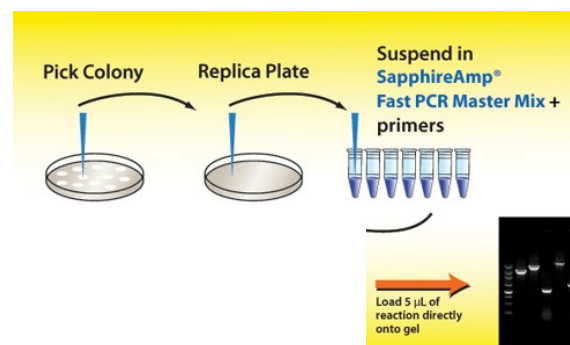
- high publication rates worldwide
- been proven reliable by our customers here in Australia



Use this guide to choose your enzyme

End Point PCR

Colony PCR—screen for constructs



<ul style="list-style-type: none"> • Streamlined screening • Blue loading dye in the mix • Load directly on a gel • Screen for constructs in less than 1 hour 	Standard & HTP Genotyping	SapphireAmp® Fast PCR Master Mix	RR350A/B
---	---------------------------	----------------------------------	--------------------------

Standard PCR Amplification

Half life at: 97.5°C 7 min. 95.0°C 35 min. 92.5°C > 130 min. 95.0°C + 10% glycerol > 60 min. 95.0°C + 5% glycerol 45 min.	Extension rate: 1 kb/min.
Cycle half life: under cycling conditions of 94°C, 1 min. > 40 cycles 55°C, 1 min. 72°C, 1 min.	Analog incorporation of: dUTP O (dTTP>dUTP>biotin-dUTP) biotin-dUTP O dC ₃ GTP O (dGTP > dC ₃ GTP)
	Extra dNTP addition: O (A > G >> T, C)
	Associated exonuclease activity 5'→3' ± 3'→5' -

<ul style="list-style-type: none"> • Recombinant <i>Taq</i> DNA polymerase • Same properties as native <i>Taq</i> • Low <i>E. coli</i> genomic DNA contamination—ideal for prokaryotic & environmental/agricultural samples 	DNA polymerase	TaKaRa <i>Taq</i> ® DNA Polymerase	R001A/B/C
	DNA polymerase (Mg ²⁺ free)	TaKaRa <i>Taq</i> ® DNA Polymerase (with Mg ²⁺ free buffer)	R001AM/CM/BM
	Premix	Premix <i>Taq</i> ® DNA Polymerase	R004A

Request a sample

1800 007 900
info@scientifix.com.au

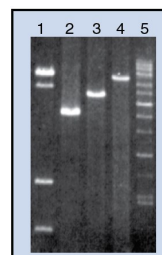
End Point PCR

Dye-Added PCR



<ul style="list-style-type: none"> Premixes Emerald green loading dye Good performance on AT & GC rich DNA 	Standard & HTP Genotyping	EmeraldAmp® GT PCR Master Mix	RR310A/B
	Higher fidelity	EmeraldAmp® MAX PCR Master Mix	RR320A/B
	Hot start/higher fidelity	EmeraldAmp® MAX HS PCR Master Mix	RR330A/B

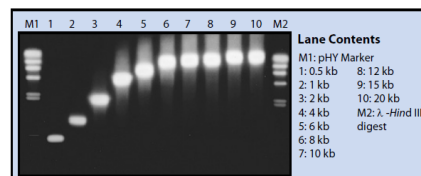
Long PCR Amplification



1. λ -HindIII digest
 2. 17.5 kb
 3. 21.5 kb
 4. 27 kb
 5. High MW markers

<ul style="list-style-type: none"> Routine to 20kb Up to 48kb possible Includes DNA proofreader with 3' to 5' exo activity 6.5x accuracy of <i>Taq</i> 	Long & accurate	TaKaRa LA <i>Taq</i> ® DNA Polymerase	RR002A/B
	Long & accurate hot start	TaKaRa LA <i>Taq</i> ® DNA Polymerase Hot Start Version	RR042A/B
	Long & accurate high GC	TaKaRa LA <i>Taq</i> ® DNA Polymerase with GC Buffers	RR02AG

Higher Fidelity Routine PCR



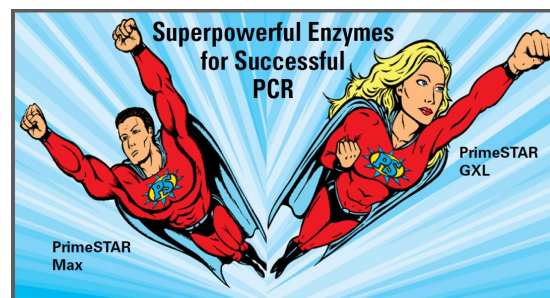
Lane Contents
 M1: pHY Marker
 1: 0.5 kb 8: 12 kb
 2: 1 kb 9: 15 kb
 3: 2 kb 10: 20 kb
 4: 4 kb M2: λ -Hind III digest
 5: 6 kb
 6: 8 kb
 7: 10 kb

<ul style="list-style-type: none"> Higher fidelity & higher yield Includes a DNA proofreader 4.5x accuracy of <i>Taq</i> Less optimisation & more reproducible than <i>Taq</i> 	Routine templates	TaKaRa <i>Ex Taq</i> ™ DNA Polymerase (Mg ²⁺ free buffer version also available)	RR001A/B/C
	Difficult templates (hot start)	TaKaRa <i>Ex Taq</i> ™ DNA Polymerase Hot Start Version	RR320A/B

Clontech & Takara—trusted polymerase brands

End Point PCR

Highest Fidelity PCR



<p>PrimeSTAR® GXL</p> <ul style="list-style-type: none"> Novel elongation factor to dramatically increase PCR performance Robust PCR High fidelity (~1 error/16,230 bp) Long PCR <p>PrimeSTAR® Max</p> <ul style="list-style-type: none"> Extremely high accuracy, sensitivity & specificity High speed Very high fidelity (~1 error/45,200 bp) 	Most DNA templates	PrimeSTAR® GXL DNA Polymerase	R050A/B
	Super high fidelity Fast	PrimeSTAR® Max DNA Polymerase	R045A/B

Direct Sample PCR Amplification



<ul style="list-style-type: none"> Direct PCR from crude extract or small tissue samples No DNA purification Add sample directly to vial Animal or plant samples 	Polymerase mix	Terra™ PCR Direct Polymerase Mix	639269 639270 639271
	Dye added polymerase premix	Terra™ PCR Direct Red Dye Premix	639286
	Specific kits	Terra™ PCR Direct FFPE Kit Terra™ PCR Direct Card Kit (blood FTA cards) Terra™ PCR Direct Genotyping Kit	639284 639287 639285

Request a sample

1800 007 900
info@scientifix.com.au

End Point PCR

High yield, whole genome amplification

<ul style="list-style-type: none"> • Very high yield polymerase • Great tolerance, thus little optimisation required • Ideal for NGS and array platforms eg. Illumina and Affymetrix • Amplifies rare and low copy targets • Amplifies up to 2kb 	Hot Start	TITANIUM® Taq DNA Polymerase	639208 639209 639242
	For Affymetrix SNP Array 6.0	TITANIUM® DNA Amplification Kits	639240 639243

Real Time PCR (qPCR)

SYBR® Detection



<ul style="list-style-type: none"> • Include SYBR® green I • Detect as few as 100 copies • RNase H included in the premix • No mRNA/cDNA inhibition • No additional RNase H step • High-speed PCR • Works with common real time instruments 	High specificity	SYBR® Premix <i>Ex Taq</i> ™ II (Tli RNase H Plus)	RR820A/B
	Longer amplicons (up to 570 bp)	SYBR® Premix <i>Ex Taq</i> ™ (Tli RNase H Plus)	RR420A/B

Probe qPCR

<ul style="list-style-type: none"> • 2X TaqMan® master mix for easy set up • Rapid and accurate product detection • RNase H included in the premix • No mRNA/cDNA inhibition • High-speed PCR 	Hot start/high-speed	Premix <i>Ex Taq</i> ™ (Probe qPCR)	RR390A/B
--	----------------------	-------------------------------------	--------------------------