



JMR PCR PRODUCT PORTFOLIO

TAQ POLYMERASE



Separation Scientific SA (Pty) Ltd

Tel: 011 794 4430

Contact us: info@sepsci.co.za

Web: www.sepsci.co.za

Our enzymes have undergone extensive development and are offered to the user fully optimised with a buffer which has been developed and tested to produce a reliable and consistent result.

Stringent quality control on each batch gives the customer confidence in the product they will receive.

A certificate of analysis is available on request.



SUPER-THERM GOLD has a proven track record of reliability for PCR where a "Hot Start" protocol is used.

The enzyme is inactive until incubated at 95°C for several minutes, this allows for reactions to be assembled at room temperature without the loss of PCR specificity due to primer dimer formation and the extension of non-specifically annealed primers.

Benefits:

- Ideal for applications involving complex genomic or cDNA templates
- Convenient, reactions can be prepared and held at room temperature
- Specificity minimizes non-specific amplification
- Exhibits an extension rate of 2kb-4kb per minute
- 0.2u to 0.5u in a 50ul reaction

Kits:

- JMR-851 SuperTherm GOLD - 250 units
- JMR-THS1 SuperTherm GOLD Master Mix, 1ml
- JMR-THS5 SuperTherm GOLD Master Mix, 5ml

SUPER-THERM utilises a superior quality recombinant Thermus DNA polymerase which offers exceptional value out performing most competitive.

DNA Polymerase. SUPER-THERM has enhanced thermal stability and as a result can be shipped at ambient temperature with no detrimental effect on performance.

Benefits:

- Tolerates wide range of templates with minimal optimisation
- High thermal stability required for PCR
- Suitable for PCR protocols employing many PCR cycles
- Exhibits an extension rate of 2kb-4kb per minute
- 0.2u to 0.5u in a 50ul reaction

Kits:

- JMR-801 SuperTherm TAQ - 250 units
- JMR-TS1 SuperTherm Master Mix, 1ml
- JMR-TS5 SuperTherm Master Mix, 5ml

EXSEL DNA POLYMERASE is a unique blend of a DNA polymerase and a thermostable proof-reading enzyme which work together to amplify DNA templates resulting in both higher yield and a four-fold lower frequency than a standard PCR polymerase.

Benefits:

- Amplifies up to 10kb of Lambda DNA and 8kb of Human DNA
- High yield of PCR product
- High fidelity - low error rate
- Ideal for Long PCR and PCR for cloning and mutagenesis
- Tolerates wide range of templates with minimal optimisation
- Exhibits an extension rate of 2kb-4kb per minute
- Proven track record of reliability

Kits:

- JMR-900 ExSel TAQ - 250 units
- JMR-THFS1 ExSel TAQ Master Mix, 1ml
- JMR-THFS5 ExSel TAQ Master Mix, 5ml



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REAL TIME PCR MASTER MIXES



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SUPER-SYBR MIX is a master mix designed to simplify the preparation of a Real Time PCR assay.

The master mix contains Hotstart DNA polymerase, optimised reaction buffer, MgCl₂, nucleotides and Sybr® Green I as the fluorescent marker.

Benefits:

- Easy to use, less preparation time
- Existing PCR assays can be used
- Optimised and stabilised Sybr® Green I in the mix
- Ease of assay design, reproducible results
- Suitable for automation and high throughput

Kits:

- JMR-SS5 2x SuperCybr Mix, 5ml, 200 x 50ul rx
- JMR-220 ROX Passive Reference, 220ul, 200 x 50ul rx

PERFECT-PROBE MIX is a master mix designed to simplify the preparation of a Real Time PCR assay which utilise a sequence specific fluorescent probe.

The master mix contains Hotstart DNA polymerase, optimised reaction buffer, MgCl₂ and nucleotides.

Benefits:

- Easy to use, less preparation time
- Reproducible and reliable results
- Maximum sensitivity
- Optimised for the most widely used fluorescent probe chemistries
- Suitable for automation and high throughput

Kit:

- JMR-PP5 2x PerfectProbe Mix, 5ml, 200 x 50ul rx

ROBUST RT-PCR MIX is a ready to use master mix which performs both reverse transcription of a single stranded RNA to cDNA and the PCR amplification of the DNA in one single closed tube.

Benefits:

- Closed tube format minimises contaminant
- Unique enzyme mix performs the reverse transcription producing high yield of cDNA
- Hotstart DNA polymerase for accurate amplification
- Separate vial of passive reference included

Kit:

- JMR-ROB5 2x Robust RT-PCR Mix, 5ml, 200 x 50ul rx

RAPID-RT KIT contains all the components necessary to perform a 1st strand cDNA synthesis from mRNA

Using a unique mix of a reverse transcriptase enzyme and an RNase Inhibitor, which protects the RNA from degradation, reproducible high yields of cDNA are obtained.

Benefits:

- High yield, full length cDNA obtained using random nonamers
- Accurate transcription
- Transcribes through 'secondary structure' of the RNA Easy to use and reliable results

Kit:

- JMR-RAP1.25 RAPID-RT Kit, 1.25ml, 250 x 10ul rx



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PFU DNA POLYMERASE



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Pfu DNA Polymerase is a cloned thermophilic DNA polymerase of *Pryococcus furiosus* which has an inherent proof-reading activity able to correct errors which can occur during PCR.

Benefits:

- Highly thermostable and accurate polymerase ideal for PCR where high accuracy of product is required
- Ideal for high fidelity PCR required for cloning, protein expression and site directed mutagenesis

Kits:

- JMR-951 Pfu DNA Polymerase, 250U
- JMR-PFU1 Pfu DNA Polymerase Master Mix, 1ml
- JMR-440 JMR-440 + JMR-496 - Special pack assembled locally

BUFFERS

- JMR-455 10x PCR Reaction Buffer, 1.5ml
- JMR-490 10x ExSel TAQ Buffer, 1.5ml
- JMR-456 25mM MgCl₂, 1.5 ml
- JMR-470 10x SuperTherm GOLD Buffer, 1.5 ml

BUFFERS - BULK

- JMR-490 ExSel TAQ Buffer 20 ml
- ExSel TAQ Buffer 50 ml
- JMR-470 SuperTherm GOLD BUFFER 20 ml
- JMR-801b SuperTherm GOLD BUFFER 50 ml

