

Fermentas

Marketplace

No.23/2009 · Information and Products for Life Science Laboratories

The Fermentas Summer Special

**Summer
offer**

valid until Sept 30th 2009.
Promo-No MP23_2009

%

The enzyme you dream of...

DreamTaq™ DNA Polymerase

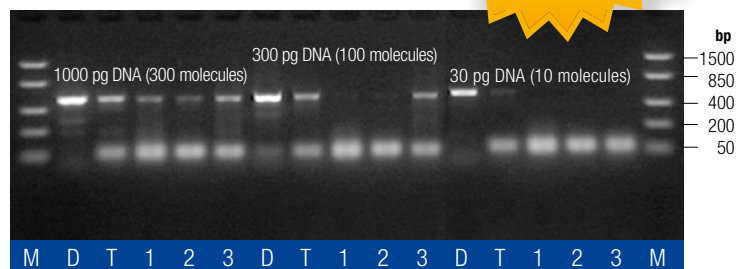
Summer offer

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All the benefits at a glance

- Robust amplification with minimal optimization
- High yields of PCR products
- Higher sensitivity compared to conventional *Taq* DNA polymerase
- Long targets up to 6kb can be amplified from genomic DNA and up to 20 kb from viral DNA
- Generation of PCR products for TA cloning



Comparison of PCR sensitivity and yield with DreamTaq™ DNA Polymerase and other commercial *Taq* DNA polymerases.

A 545 bp fragment of human α -L-Fucosidase gene DNA was amplified according to manufacturer's recommendations using decreasing amounts of human genomic DNA.

M – FastRuler™ Low Range DNA Ladder, ready-to-use (#SM1103) **D** – DreamTaq™ DNA Polymerase (#EP0701) **T** – *Taq* DNA Polymerase **1-3** – *Taq* DNA polymerases from different vendors

Cat. No.	Amount	£	Summer offer* £
DreamTaq™ DNA Polymerase			
EP0703	5x500 u (5u/μl)	£175.00	£123.00
EP0704	20x500 u (5u/μl)	£560.00	£420.00

*Offer is valid until 30th of September 2009. Please quote Promotion No. MP23_2009.

Save time - go directly from PCR to gel

DreamTaq™ Green DNA Polymerase

DreamTaq™ Green PCR Master Mix (2X)

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All the benefits at a glance

- Save time - ready to load PCR product
- Long targets can be amplified: up to 6 kb from genomic DNA and up to 20 kb from lambda DNA
- High PCR yields and high sensitivity
- Generation of PCR products for TA cloning
- Convenient - fewer pipetting steps with master mix format

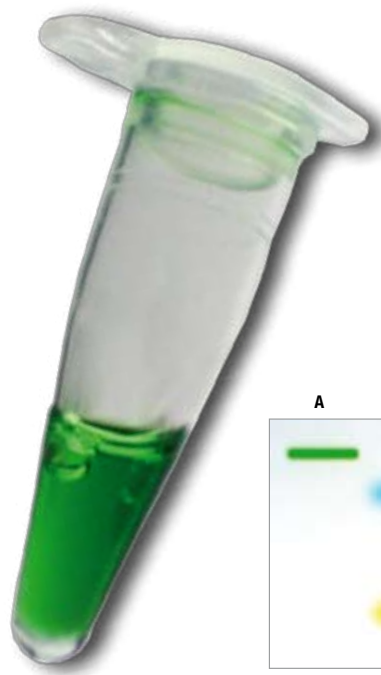
Applications

- Routine PCR amplification of DNA fragments
- High throughput PCR
- RT-PCR

Note: does not incorporate dUTP

Cat. No.	Amount	£	Summer offer* £
DreamTaq™ Green DNA Polymerase			
EP0713	5x500 u (5u/μl)	£229.00	£166.00
DreamTaq™ Green PCR Master Mix (2X)			
K1082	1000 react.	£288.00	£208.00

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A: unseparated in a well
B: dyes after separation
yellow: ~10 bp
blue: ~3-5 kb

Nucleotides with the highest purity at the best price

dNTPs



✓ All the benefits at a glance

- Purity > 99%, confirmed by HPLC
- Free of traces of other nucleotides
- Free of endo-, exonucleases, DNases, RNases and phosphatases
- Free of human and *E.coli* DNA
- In house production
- Stable for years
- Supplied as set, mixes, individually or modified
- Bulk amounts available on request

Cat. No.	Volume	Amount	£	Summer offer* £
dNTP Set (100mM Solution)				
R0182	4 x 1 ml	4 x 100 µmol	£199.00	£124.00
R0186	4 x 5 ml	4 x 100 µmol	£695.00	£418.00
dNTP Mix (10mM each)				
R0193	5 x 1 ml	5 x 40 µmol	£215.00	£148.00

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RT - PCR

High yield of DNA

RevertAid™ H Minus First Strand cDNA Synthesis Kit



✓ All the benefits at a glance

- No RNase activity
- High yield of first strand cDNA of > 13 kb
- Increased reaction temperature: 42-55°C
- Supplied with recombinant RiboLock™ RNase Inhibitor

Cat. No.	Amount	£	Summer offer* £
RevertAid™ H Minus First Strand cDNA Synthesis Kit			
K1632	100 react	£224.60	£154.00

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Thermostable up to 55°C

RiboLock™ Ribonuclease Inhibitor



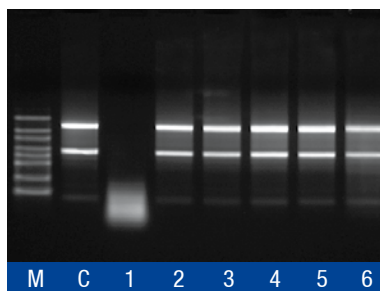
✓ All the benefits at a glance

- Thermostable up to 55°C
- Active at pH 5-9
- Inhibits the activity of eukaryotic RNases A, B and C

Cat. No.	Amount	£	Summer offer* £
RiboLock™ Ribonuclease Inhibitor			
E00384	24x2500 u (40 u/µl)	£590.40	£399.00

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High thermostability of RiboLock™ Ribonuclease Inhibitor



M RNA Ladder, High Range (#SM1821)
 C total human RNA
 1 total human RNA with RNase A
 2-6 total human RNA with RiboLock™ Ribonuclease Inhibitor and RNase A

Total human RNA was supplemented with 20u of RiboLock™ Ribonuclease Inhibitor and 50pg Ribonuclease A (#EN0531) and incubated at different temperatures.

Accurate quantification

Maxima™ SYBR Green qPCR Master Mix (2X)

Maxima™ Probe qPCR Master Mix (2X)

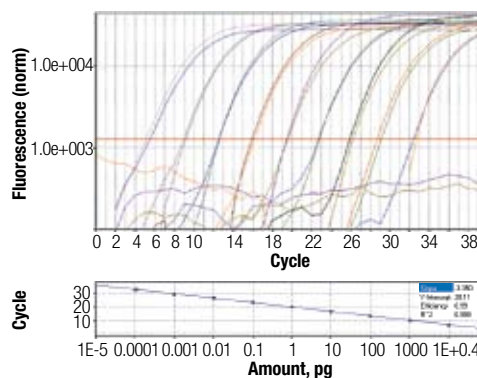


All the benefits at a glance

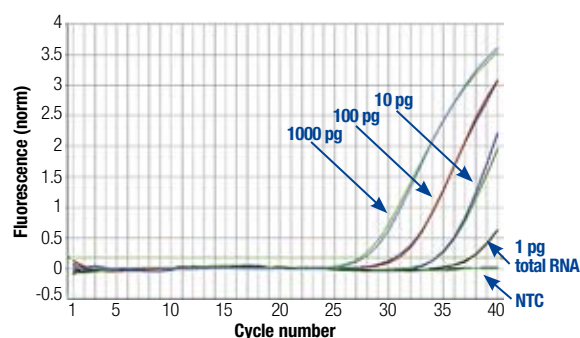
- Specificity - Maxima™ Hot Start *Taq* DNA Polymerase and the optimized buffer eliminate non-specific amplification and formation of primer dimers
- Sensitivity - detects low copy number targets
- Wide linear range - accurate quantification across 9 orders of magnitude
- Universal - can be used on most real-time thermal cyclers incl. instruments from Applied Biosystems, Eppendorf, Corbett, Bio-Rad and Roche
- Reproducibility and convenience - ready-to-use 2X master mix minimizes pipetting error and reduces set-up time
- Master Mix - only template and primers need to be added
- Maxima™ SYBR Green qPCR Master Mix (2X) includes: Maxima™ Hot Start *Taq* DNA Polymerase and dNTPs in an optimized PCR buffer. The SYBR Green intercalating dye allows DNA detection and analysis without using sequence-specific probes. ROX serves as a passive reference dye
- Maxima™ Probe qPCR Master Mix (2X) includes: Maxima™ Hot Start *Taq* DNA Polymerase and dNTPs in an optimized PCR buffer. ROX serves as a passive reference dye. Sequence-specific probes should be used for analysis
- dUTP is included in the mixes for optional carryover contamination control using uracil DNA glycosylase (UDG)

Applications

- Real-time PCR and RT-PCR using SYBR Green dye and sequence-specific probes, respectively



Uniform and reproducible results. Amplification of 10-fold dilutions of supercoiled plasmid DNA, starting from 10 ng down to 0.1 fg, using the Maxima™ SYBR Green qPCR Master Mix (2X) in duplicate reactions. Reactions were performed on the Eppendorf Mastercycler® ep *realplex* instrument. The amplification plot and standard curve show the linearity across 9 orders of magnitude. NTC is the non-template control.



Highly sensitive two step qRT-PCR. Amplification of human PPP1CA gene was performed on serial 10-fold dilutions of Jurkat cell total RNA (from 1 ng to 1 pg). First strand cDNA was generated with the RevertAid™ First Strand cDNA Synthesis Kit (#K1621). cDNA was amplified with the Maxima™ Probe qPCR Master Mix (2X) using the TaqMan® assay specific for PPP1CA. Reactions were performed on an ABI PRISM® 7000 instrument. 1 pg of total RNA was successfully detected. NTC is the non-template control.

Cat. No.	Amount / React.	£	Summer offer* £
Maxima™ SYBR Green qPCR Master Mix (2X)			
K0222	10x1.25 ml / 1000	£426.00	£299.00
Maxima™ Probe qPCR Master Mix (2X)			
K0232	10x1.25 ml / 1000	£375.00	£259.00

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Compatible instruments for Maxima™ SYBR Green qPCR Master Mix (2X) and Maxima™ Probe qPCR Master Mix (2X)

Manufacturer	Roche			Applied Biosystems		Bio-Rad		Eppendorf	Peqlab	Stratagene		
Instrument	Light Cycler 480	Light Cycler 1.5	Light Cycler 2.0	7300, 7900, 7900 Fast	7500, 7500 Fast	Chromo, IQ5	MiniOpticon, Opticon, MyIQ	Mastercycler ep <i>realplex</i> ² Mastercycler ep <i>realplex</i> ⁴	Smart Cycler II	Mx3000p	Mx3005p	Mx4000
Maxima™ SYBR Green qPCR Master Mix (2X)	yes	yes*	yes*	yes	yes**	yes	yes*	yes*	yes	yes	yes	yes
Maxima™ Probe qPCR Master Mix (2X)	yes	yes*	yes*	yes	yes**	yes	yes*	yes*	yes	yes	yes	yes
Remarks	Rox not needed: analyze true raw data.		no additional BSA required	Does not work on fast cycling								

* no detection of ROX, but ROX does not disturb

** ROX concentration too high, usage of a TAMRA filter instead of the ROX filter may help

Efficient - fast - high purity DNA

GeneJET™ Plasmid Miniprep Kit

GeneJET™ PCR Purification Kit

GeneJET™ Gel Extraction Kit



✓ All the benefits at a glance

- Convenient: no phenol/chloroform extraction or alcohol precipitation
- Efficient - high recovery
- Effective and pure: eluted purified DNA is immediately ready to use for FastDigest® restriction digestion, conventional restriction digestion, PCR, fast PCR, sequencing, transformation
- Cost effective – best price to quality ratio in the market



	Cat. No.	Amount	£	Summer offer* £
GeneJET™ Plasmid Miniprep Kit	K0503	250 preps	£150.00	£110.00
GeneJET™ Gel Extraction Kit	K0692	250 preps	£208.00	£146.00
GeneJET™ PCR Purification Kit	K0702	250 preps	£208.00	£146.00

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DNA Ladders

Convenient DNA sizing: 100bp Ladders

GeneRuler™ 100bp DNA Ladder

GeneRuler™ 100bp Plus DNA Ladder



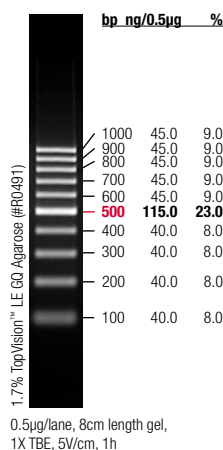
✓ All the benefits at a glance

- Ideal for both DNA sizing and quantification
- Sharp bands
- Bright reference bands (indicated in red font)
- The ready-to-use ladders can be directly loaded and are stable at room temperature for 6 months
- Supplied with additional 6x DNA Loading Dye for your sample DNA

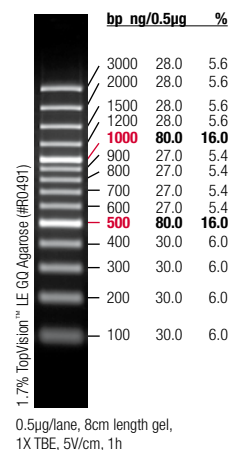
Cat. No.	Amount	£	Summer offer* £
GeneRuler™ 100bp DNA Ladder			
SM0242	5x50 µg	£126.00	£102.00
SM0243	100 applic. r-t-u	£43.30	£33.00
SM0244	5x100 applic. r-t-u	£173.20	£132.00
GeneRuler™ 100bp Plus DNA Ladder			
SM0322	5x50 µg	£126.50	£102.00
SM0323	100 applic. r-t-u	£43.30	£33.00
SM0324	5x100 applic. r-t-u	£173.20	£133.00

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GeneRuler™ 100bp DNA Ladder
#SM0242/3/4



GeneRuler™ 100bp Plus DNA Ladder
#SM0322/3/4



Convenient DNA sizing: 1kb Ladders

GeneRuler™ 1kb DNA Ladder

GeneRuler™ 1kb Plus DNA Ladder



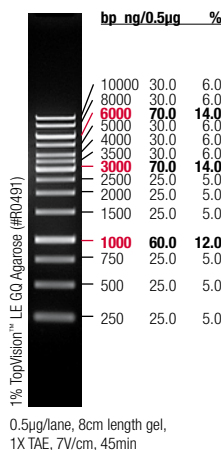
All the benefits at a glance

- Ideal for both DNA sizing and approximate quantification
- Sharp bands
- Bright reference bands (indicated in red font)
- The ready-to-use ladders can be directly loaded and are stable at room temperature for 6 months
- Supplied with additional 6x DNA Loading Dye for your sample DNA

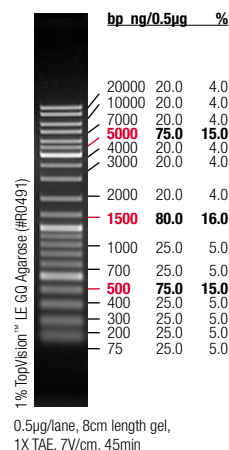
Cat. No.	Amount	£	Summer offer* £
GeneRuler™ 1kb DNA Ladder			
SM0311	5x50 µg	£62.80	£47.00
SM0312	25x50 µg	£242.20	£169.00
SM0313	5x100 applic. r-t-u	£76.30	£62.00
GeneRuler™ 1kb Plus DNA Ladder			
SM1331	5x50µg	£63.80	£39.00
SM1332	25x50 µg	£246.00	£149.00
SM1333	5x100 applic. r-t-u	£79.70	£48.00

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GeneRuler™ 1kb DNA Ladder
#SM0311/2/3



GeneRuler™ 1kb Plus DNA Ladder
#SM1331/2/3



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Please send me:

- Catalogue 2009 (#C2008/9)
- Poster "FastDigest® Restriction Enzymes" (#PF2008)
- Poster "Restriction Enzyme Buffer Activity Chart" (#P2008)
- LabAid™ GeneRuler™ DNA Ladders (#L3G)
- Inform me about the "Fermentas Flexible Freezer - Programme"
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- Please delete my address from your mailing list for printed material

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