

EconoTaq[®] PLUS GREEN 2X Master Mix

The easiest-ever solution for PCR!

"I will continue to use EconoTaq PLUS GREEN 2X Master Mix for all of my genotyping protocols. Its relative simplicity is superb, and the price can't be beaten!" Erin Plisch, Dept. of Pathobiological Sciences, University of Wisconsin-Madison.

Lucigen introduces **EconoTaq PLUS GREEN**: a high density 2X Master Mix containing EconoTaq DNA Polymerase, dNTPs, PCR enhancer & stabilizer, buffer with the magnesium concentration optimal for routine PCR, and gel loading & tracking dyes. Just add your template and primers, cycle, and load directly on the gel for analysis.

EconoTaq PLUS GREEN dyes separate during electrophoresis into a slow-running blue dye and a fast-running yellow dye for easy visualization (Figure 1). If desired, the dyes are easily removed by standard DNA purification products or ethanol precipitation.

For fluorescence or absorbance detection assays, EconoTaq PLUS 2X Master Mix offers the same low price and great performance without the dyes.

More effective than other Taq master mixes.

EconoTaq 2X Master Mixes contain a proprietary PCR enhancer, so they can successfully amplify templates that fail to amplify with other PCR master mixes (Figure 2, A).

Excellent results in routine PCR.

EconoTaq PLUS GREEN & EconoTaq PLUS contain high purity, high activity EconoTaq DNA Polymerase for reliable amplification of templates up to 5 kb. (See Figure 2, B-C).

Low price!

EconoTaq PLUS GREEN & EconoTaq PLUS offer the lowest per-reaction price when compared to Taq master mixes from any other supplier. EconoTaq PLUS GREEN & EconoTaq PLUS prices are based on a 50µl PCR; using a 25µl reaction volume will stretch your research budget even further.

Convenient.

EconoTaq 2X Master Mixes are packaged in 50 reaction vials, stable for 10 freeze-thaw cycles, and can be stored in the refrigerator (+4°C) for up to 3 months.

FREE SAMPLE!

A free sample (10 reactions) of **EconoTaq PLUS GREEN** is available on request with an order of any other Lucigen product. Simply request catalog number 30033-0. Limited to one free sample per customer.

Comparison of EconoTaq PLUS GREEN price versus other Master Mixes.

Supplier	Product Name	Quantity	Price	Price per Rxn
Lucigen	EconoTaq PLUS GREEN	500 rxns	\$125	\$0.25
Promega	GoTaq [™] Green DNA Polymerase	100 rxns	\$38	\$0.38
NEB	Taq 2X Mastermix	500 rxns	\$212	\$0.42
EMD Bioscience (Novagen)	NovaTaq [™] PCR Master Mix	200 rxns	\$142	\$0.71
USB	Taq PCR Master Mix 2X	100 rxns	\$76	\$0.76
Invitrogen	PCR Supermix	100 rxns	\$103	\$1.03
Qiagen	Taq PCR Master Mix Kit	100 rxns	\$167	\$1.67

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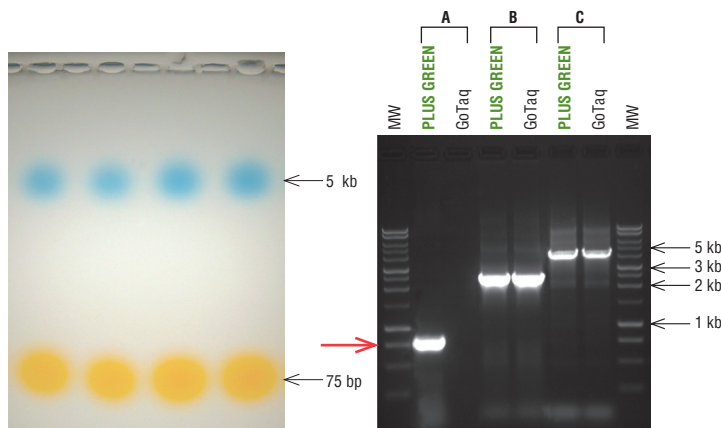


Figure 1. Easy visualization with EconoTaq PLUS GREEN. During electrophoresis, the green loading color separates into a slow-moving blue dye and a fast-moving yellow dye.

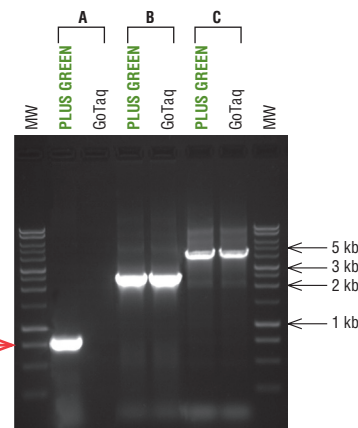


Figure 2. EconoTaq PLUS GREEN Master Mix vs. GoTaq[®] Green Master Mix (Promega) in PCR. PCR was performed according to the manufacturer's recommendations using primers specific for the indicated genes. Panel A, 0.7 kb prokaryotic single-stranded DNA binding protein (genomic DNA); Panel B, 2.7 kb prokaryotic DNA polymerase A (genomic DNA); Panel C, 4.5 kb gene (plasmid DNA). GoTaq failed to amplify a template successfully amplified by EconTaq PLUS GREEN (arrow).

Specifications:

Activity Determination. One unit of EconoTaq DNA polymerase catalyzes the incorporation of 10 nmoles of dNTP into acid-insoluble material in 30 minutes at 70°C in 50 mM Tris-HCl (pH 9.0), 50 mM NaCl, 5 mM MgCl₂, 200 µM dGTP, dATP, dTTP, dCTP (a mix of unlabeled and [³²P]dCTP), 10 µg Activated Calf Thymus DNA, and 0.1 mg/ml BSA.

Purity. EconoTaq DNA Polymerase is >99% pure as determined by SDS PAGE. There is no detectable DNA contamination.

Storage. EconoTaq PLUS and EconoTaq PLUS GREEN 2X Master Mixes can be stored at -20°C for 12 months. To minimize the freeze-thaw cycles, store in several aliquots. For everyday use, an aliquot can be stored at +4°C for up to three months. The PCR Master Mix should be mixed well prior to use.

Master Mix Components. 0.1 unit/µl of Taq DNA polymerase, Reaction Buffer (pH 9.0), 400 µM dATP, 400 µM dGTP, 400 µM dCTP, 400 µM dTTP, 3 mM MgCl₂, a proprietary PCR enhancer/stabilizer, with or without blue and yellow tracking dyes.

ORDER INFORMATION

Use EconoTaq PLUS GREEN 2X Master Mix when the PCR products will be analyzed by agarose gel electrophoresis and ethidium bromide staining. Use EconoTaq PLUS 2X Master Mix when the PCR products will be analyzed by absorbance or fluorescence excitation, to avoid possible interference by the dyes.

Products	Size	Cat. No.	Price
EconoTaq PLUS GREEN 2X Master Mix (50 rxns per tube)	500 reactions	30033-1	\$131
	1,000 reactions	30033-2	\$221
EconoTaq PLUS 2X Master Mix (50 rxns per tube)	500 reactions	30035-1	\$131
	1,000 reactions	30035-2	\$221

See "Please Note" statement on reverse.

Economical choice for PCR - 1,000 U only \$89!

Offering high purity, high activity, and an exceptionally attractive price, EconoTaq DNA Polymerase is the ideal choice for standard, everyday PCR. At less than 9¢ per unit list price (quantity discounts available), EconoTaq's very low price is coupled with high quality and performance when compared to more expensive enzymes. Compare the price and performance to see how much your lab can save with EconoTaq DNA Polymerase.

High Activity.

EconoTaq DNA Polymerase has high PCR activity & low background.

High Purity.

The enzyme is free of contaminating DNA, as well as endonuclease and nicking activities. It is purified to apparent homogeneity.

Comparable Results.

Optimized magnesium concentration in 10X Reaction Buffer provides excellent results when compared to Promega and New England Biolabs Taq polymerases (Figure 1).

Flexibility.

Provided with your choice of: 10X Reaction Buffer with Mg⁺⁺; or 10X Reaction Buffer without Mg⁺⁺ and a separate tube of 25 mM MgCl₂.

Low price!

EconoTaq DNA Polymerase offers the lowest per-unit price, compared to Taq DNA polymerase from any other supplier.

FREE SAMPLE!

A free sample (250 U) of **EconoTaq DNA Polymerase** (includes 10X Reaction Buffer with Mg⁺⁺) is available on request with an order of any other Lucigen product. Simply request Cat. No. 30031-0. Limited to one free sample per customer.

Comparison of EconoTaq DNA Polymerase price versus other suppliers.

Supplier	Product Name	Quantity	Price	Price per Unit
Lucigen	EconoTaq DNA Polymerase	1000U	\$89	\$0.089
NEB	Taq DNA Polymerase	400U	\$58	\$0.15
USB	Taq DNA Polymerase	1000U	\$232	\$0.23
Promega	GoTaq™ DNA Polymerase	500U	\$123	\$0.25
EMD Bioscience (Novagen)	NovaTaq™ DNA Polymerase	500U	\$152	\$0.30
Qiagen	Taq DNA Polymerase	250U	\$121	\$0.48
Invitrogen	Taq DNA Polymerase	500U	\$269	\$0.54
Roche	Taq DNA Polymerase	1000U	\$541	\$0.54

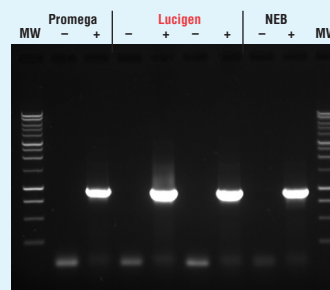


Figure 1. Taq DNA polymerase from Promega and NEB were compared to two lots of Lucigen's EconoTaq DNA Polymerase in amplifying the ampicillin gene (0.8 kb) in a pUC19 vector. (-), no DNA. (+), DNA added (40 ng). MW, 1 kb ladder.

Specifications

Activity Determination. One unit catalyzes the incorporation of 10 nmol of dNTP into acid-insoluble material in 30 minutes at 70°C in 50 mM Tris-HCl (pH 9.0), 50 mM NaCl, 5 mM MgCl₂, 200 μM dGTP, dATP, dTTP dCTP (a mix of unlabeled and [³²P] dCTP), 10 μg of Activated Calf Thymus DNA, and 0.1 mg/ml BSA.

Purity. Free of contaminating DNA, endonuclease, and nicking activities. Greater than 99% pure by SDS-PAGE.

Storage Buffer: 10 mM Tris-HCl (pH 7.5), 100 mM KCl, 0.1% Triton X-100, 0.1 mM EDTA, 1mM DTT, and 50% glycerol.

10X Reaction Buffer: 100mM Tris-HCl (pH 9.0), 500 mM KCl, 1% Triton X-100; with or without 15mM MgCl₂.

ORDER INFORMATION

EconoTaq DNA Polymerase is provided at 5 units/μl with a choice of: 10X Reaction Buffer with Mg⁺⁺ ("with Mg⁺⁺"); or 10X Reaction Buffer without Mg⁺⁺ and a separate tube of 25 mM MgCl₂ ("separate Mg⁺⁺").

Products	Size	Cat. No.	Price
EconoTaq DNA Polymerase (with Mg ⁺⁺)	1,000 U	30031-1	\$89
	5,000 U	30031-2	\$425
	10,000 U	39931-3	\$828
EconoTaq DNA Polymerase (separate Mg ⁺⁺)	1,000 U	30032-1	\$89
	5,000 U	30032-2	\$425
	10,000 U	30032-3	\$828

Please Note: Some applications in which Lucigen's EconoTaq[®] Products can be used may be covered by patents issued and applicable in the United States and certain other countries. Because purchase of this product does not include a license to perform any patented application, users of this product may be required to obtain a patent license depending upon the particular application in which the product is used. The PCR process is the subject of European Patent Nos. 201,184 and 200,262 owned by Hoffman-LaRoche. Those patents expired on March 28, 2006. The corresponding PCR process patents in the United States expired on March 29, 2005. It is the sole responsibility of the buyer to ensure that use of the product does not infringe the patent rights of third parties.