

Taq PCR Master Mix (2X)

Premixed Taq Reaction Mix - just add template, primers and water!



USB Taq PCR Master Mix is supplied as a convenient 2X pre-mixed formulation containing USB Taq DNA Polymerase, Ultrapure nucleotides and reaction buffer optimized for a wide variety of PCR applications.

Use of Taq PCR Master Mix provides for robust and reliable performance in PCR amplification. Since the mix is prepared from high quality reagents and is thoroughly QC tested, experimental variability is significantly reduced.

Convenient

The mix saves time and reduces potential contamination errors by eliminating several pipetting steps. For a 50 μ l reaction, simply add 25 μ l of Taq PCR Master Mix to primers, DNA template and PCR-Qualified H₂O.

Stable

The mix withstands repeated freeze-thaw cycles with no observed decrease in performance (*Fig. 1*). It is also stable at 4°C for extended periods of time. In fact, rigorous stability studies have been done at USB showing the mix to be stable at room temperature (*Fig. 2*).

Scaleable

The end-user may set-up 10 μ l, 25 μ l, 50 μ l or 100 μ l reactions.

Ideal for High Throughput

USB Taq PCR Master Mix is ideal for high-throughput applications such as screening transformants by colony PCR (*Fig. 3*) or transgenic studies.

Sensitive and Robust

The mix may be used to amplify PCR products from low-copy genomic DNA targets as well as moderately abundant cDNAs (*Figs. 1 and 2*). Quality results are also obtained with long PCR products (*Fig. 4*).

Taq PCR Master Mix Formulation (2X):

20mM Tris-HCl (pH 8.6), 100mM KCl, 3mM MgCl₂, 0.4mM dNTPs (dATP, dGTP, dTTP, dCTP), 50 units/ml Taq DNA Polymerase, stabilizers.

Additional MgCl₂ may be added for optimizing PCR conditions. Store at -20°C. Mix well prior to use.

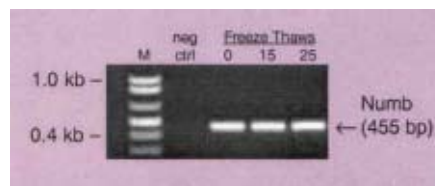


Figure 1:

Freeze-thaw stability of USB Taq PCR Master Mix.

Amplification of a segment of the single-copy Numb gene from 50 pg human genomic DNA. This represents about 30 total target copies. Following 25 freeze-thaw cycles, no significant effect on performance is observed.

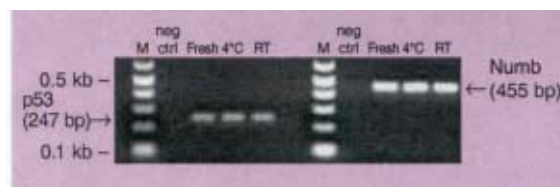


Figure 2:

4°C and room temperature stability.

USB Taq PCR Master Mix was stored both at 4°C and room temperature for two months and its performance compared against a freshly prepared mix. Segments of the single-copy p53 gene (left) and Numb gene (right) were amplified from 50 pg human genomic DNA (This represents about 30 total target copies). Under such storage conditions, PCR amplification is not significantly affected.

Figures 3 & 4 are on the back of this sheet.

Taq PCR Master Mix (2X)

Product Code	Pack Size	List Price
71162	100 reactions [4 x 625 μ l per pk]	\$76.00

USB Corporation

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USB Taq Master Mix Gets Results

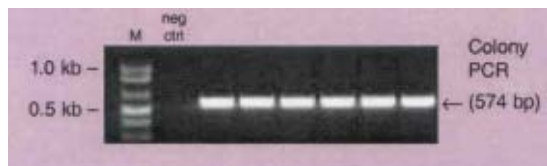


Figure 3:
Colony PCR.
Amplification of a segment of the T4 DNA Polymerase gene overexpressed in several different *E. coli* M5248 colonies.

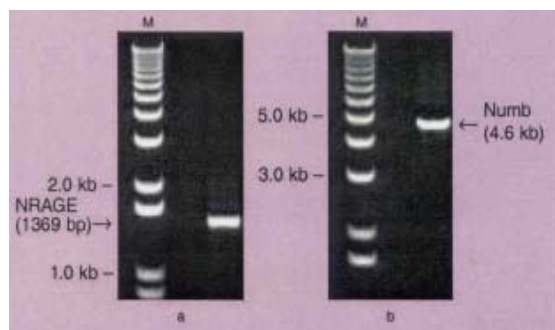


Figure 4:
Amplification of long targets from genomic DNA.
Segments of the single-copy NRAGE gene (left) and Numb gene (right) were amplified from 50 pg and 50ng human genomic DNA respectively.

Related USB Products

ExoSAP-IT® [78200, 78201, 78202, 78205]	
100 reactions	\$83.00
500 reactions	\$334.00
2,000 reactions	\$1,149.00
5,000 reactions	\$2,704.00

HotStart-IT™ Taq DNA Polymerase [71195]	
Includes 10X PCR Reaction Buffer and 25mM MgCl ₂	
50 units	\$38.00
250 units	\$145.00
1,000 units	\$490.00
5 x 250 units	\$638.00
5,000 units	\$2,250.00

HotStart-IT™ Taq Master Mix (2X) [71196]	
25 reactions	\$34.00
100 reactions	\$115.00
500 reactions	\$525.00

FideliTaq™ DNA Polymerase [71180]	
Includes 10X PCR Reaction Buffer and 25mM MgCl ₂	
50 units	\$37.00
250 units	\$158.00
1,000 units	\$570.00
5 x 250 units	\$694.00
5,000 units	\$2,450.00

FideliTaq™ PCR Master Mix, 2X [71182]	
100 reactions	\$118.00

RubyTaq™ DNA Polymerase [71190]	
Includes 10X PCR Reaction Buffer and 25mM MgCl ₂	
50 units	\$15.00
250 units	\$65.00
1,000 units	\$240.00
5,000 units	\$1,070.00

RubyTaq™ PCR Master Mix (2X) [71191]	
100 reactions (100 µl/rctn)	\$78.00

Taq DNA Polymerase [71160]	
Includes 10X PCR Reaction Buffer and 25mM MgCl ₂	
50 units	\$12.50
250 units	\$62.50
1,000 units	\$232.00
5 x 250 units	\$290.00
5,000 units	\$1,050.00

PCR-Qualified Water[71785]	
10 X 1 ml	\$33.00

Magnesium Chloride, 25mM Solution [71167]	
1 ml	\$17.00
5 X 1 ml	\$35.00

Agarose - Separation ≥ 500 bp [75817]	
<i>Genetic Performance Certified™</i>	
MB Grade	
25 gm	\$50.00
100 gm	\$150.00
250 gm	\$295.00
500 gm	\$512.00

Agarose - LE [32802]	
<i>Genetic Performance Certified™</i>	
MB Grade	
25 gm	\$40.00
100 gm	\$112.00
250 gm	\$231.00
500 gm	\$412.00

TBE Buffer, 5X Solution [75891]	
MB Grade	
1 L	\$22.00
5 L	\$50.00

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