

TAQ DNA POLYMERASE

- High specific activity and processivity results in higher yields
- Leaves an 'A' overhang
- Processes > 3 kb

A highly processive, thermostable DNA polymerase which exhibits very high activity in primer extension and other molecular biology applications. To ensure the quality of the enzyme, each lot has been functionally tested for maximal activity, specificity, and the absence of any nuclease, nicking, or self-priming activities. Each Kit contains Taq DNA Polymerase and 10X Reaction Buffer.

- 5 units/ μ L.

Standard (K Tris) Buffer - 20 mM Tris-HCl pH 8.3, 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.5% Tween 20, 0.5% NP40, 50% glycerol.

Magnesium Free Buffer - 100 mM Tris-HCl pH 8.3, 500 mM KCl, 15 mM $MgCl_2$, 1% Triton X-100.

Ammonium Buffer - 100 mM Tris-HCl pH 8.3, 500 mM KCl, 1% Triton X-100.

Combination Buffer - 750 mM Tris-HCl pH 8.5, 200 mM $(NH_4)_2SO_4$, 15 mM $MgCl_2$, 1% Tween 20.

Kit - Combination of KCl and $(NH_4)_2SO_4$, 15 mM $MgCl_2$, 1% Tween 20.

- Store at $-20^\circ C$.

Subject to special ice packaging charge.



Ordering Information

Cat. No.	Description	Qty	Price
62-6086-01	With Standard Buffer, 500 Units	1	110.00
62-6086-02	With Standard Buffer, 1000 Units	1	195.00
62-6086-05	With Mg^{2+} Free 10X Buffer, 1000 Units	1	215.00
62-6086-50	With Ammonium Buffer, 1,000 Units	1	195.00
62-6086-53	With Combination Buffer, 1,000 Units	1	195.00

TAQ DNA POLYMERASE REACTION BUFFERS

- 3 x 1.2 mL aliquots

- Store at $-20^\circ C$

Subject to special ice/packaging charge.

Ordering Information

Cat. No.	Description	Components	Qty	Price
62-6086-07	Standard (K Tris) Buffer	100 mM Tris-HCl pH 8.3, 500 mM KCl, 15 mM $MgCl_2$, 1% Triton X-100	1	18.00
62-6086-08	Magnesium Free Buffer	100 mM Tris-HCl pH 8.3, 500 mM KCl, 1% Triton X-100. Also includes 3 x 1 mL $MgCl_2$, packaged separately..	1	18.00
62-6086-42	Ammonium (NH_4^+) Buffer	750 mM Tris-HCl pH 8.5, 200 mM $(NH_4)_2SO_4$, 15 mM $MgCl_2$, 1% Tween 20	1	18.00
62-6086-44	Combination (K and NH_4^+) Buffer	Combination of KCl and $(NH_4)_2SO_4$, 15 mM $MgCl_2$, 1% Tween 20	1	18.00



PCR OPTIMIZATION REAGENTS

BUFFER OPTIMIZATION KIT

Kit contains three different buffers allowing optimization of a specific amplification process.

The Buffer Kit is supplied with 1.2 mL each of a Standard tris (K) buffer, an ammonium NH_4^+ buffer, and a combination buffer containing a proprietary mix of K and NH_4^+ .

Specific annealing typically leads to amplification of the required product. However, due to high concentration of primers necessary to allow efficient hybridization during annealing time, the primer may also hybridize to non-complementary sequences, which can result in amplification of non-specific products. The success of the amplification depends largely on maintaining a high ratio of specific to non-specific annealing of the primer molecules. This is influenced primarily by the cations in the buffer, since the cations neutralized the negatively charged phosphate groups on the DNA backbone and thereby weaken the electrorepulsive forces between the DNA strands. A reduction of the repulsive forces facilitates the annealing process between template and primer. Instead of using only the monovalent cation K, a balance between K and NH_4^+ in

the combination buffer often eliminates the need for optimisation of MgCl_2 concentration or the annealing temperature for different primer-template systems. Using one of the three buffer systems containing either K, NH_4^+ , or a combination of both, high yields of specific PCR products can be obtained over a wide range of annealing temperatures compared to the standard monovalent cation buffer.

Store at -20°C .

Subject to special ice packaging charge.

Ordering Information

Cat. No.	Description	Qty	Price
62-6086-40	Buffer Optimization Kit, 3 x 1.2 mL	1	20.00
<i>Buffers Only</i>			
62-6086-07	Standard (K tris) Buffer, 3 x 1.2 mL	1	18.00
62-6086-42	Ammonium (NH_4^+) Buffer, 3 x 1.2 mL	1	18.00
62-6086-44	Combination (K and NH_4^+), 3 x 1.2 mL	1	18.00

ENHANCER OPTIMIZATION KIT

Three factors make a particular PCR enhancer desirable: high potency, high specificity and a wide effective range, or window of applicability. Based on those criteria two enhancers are offered which are an effective additive over a wide range of different templates, including GC-rich sequences and templates known to be extremely difficult to amplify.

The Enhancer Solution is a proprietary, extremely effective additive for amplification of many different templates, giving the highest level of amplification of target (in some application 5-10 times more product) and one of the highest specificities. The Betaine Enhancer Solution is an excellent enhancer especially when used with high GC-rich regions or template with a high degree of secondary structures.

Kit contains 10 reactions each of Betaine Enhancer Solution and Enhancer Solution, 2 x 50 μL .

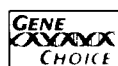
Store at -20°C .

Subject to special ice packaging charge.

Ordering Information

Cat. No.	Description	Qty	Price
62-6086-70	Enhancer Optimization Kit, 2 x 50 μL , 10 Reactions	1	10.00
<i>Solutions Only</i>			
62-6086-76	Betaine Enhancer Solution, 500 μL , 100 Reactions	1	45.00
62-6086-73	GeneChoice Enhancer Solution, 500 μL , 100 Reactions	1	45.00

The PCR process is covered by patents owned by Hoffmann LaRoche, Inc. and F. Hoffman LaRoche, Ltd.



GeneChoice is a registered trademark of Hoffmann-La Roche, Inc. © 1997 Hoffmann-La Roche, Inc. All rights reserved.