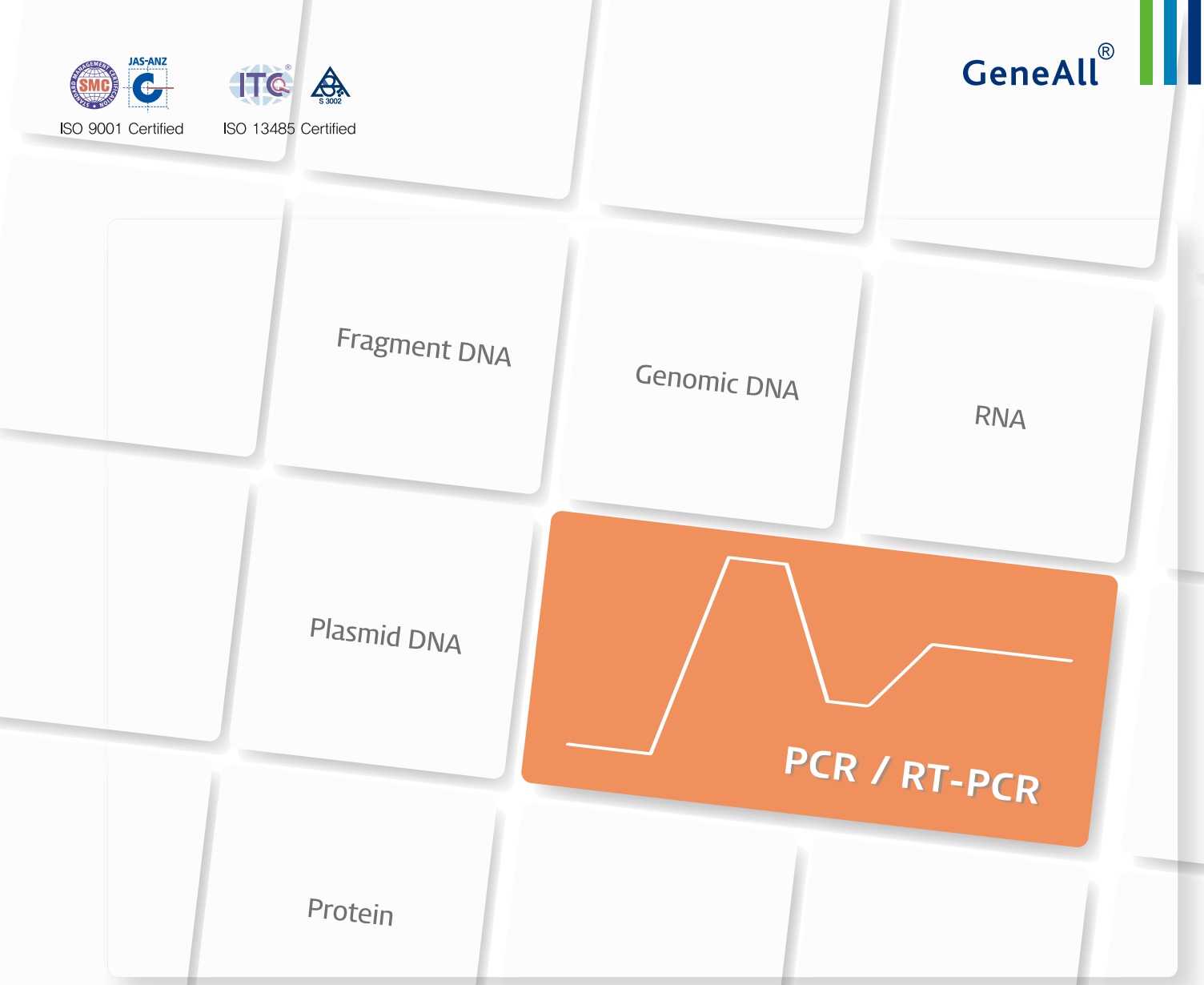
ISO 9001 Certified

ISO 13485 Certified

GeneAll®



GeneAll®

PCR / RT-PCR

Amplification System

- AmpONE™ Series
- AmpMaster™ Series
- HyperScript™ Series

GENEALL BIOTECHNOLOGY CO., LTD.

Which PCR / RT-PCR Enzyme Is Right ?

GeneAll offers a wide range of enzymes for general PCR and Reverse Transcription PCR.

AmpONE™ enzyme series are designed for various applications such as cloning, genotyping, sequencing, routine PCR, real-time PCR and long PCR. It is provided with HQ Buffer and BB Solution, innovative PCR additives that ensure highly specific amplification, resulting in significant time and cost savings. AmpONE™ Premix and AmpMaster™ mix are provided with DNA polymerase, reaction buffer, dNTPs and loading dye that help minimize the pipetting error and heighten the reproducibility.

HyperScript™ series are developed based on HyperScript™ Reverse Transcriptase of GeneAll with reduced RNase H activity and increased thermal stability. HyperScript™ One-step RT-PCR Premix and Master mix contain all the components necessary for sequential cDNA synthesis and amplification in a single tube.

GeneAll's PCR Systems are proven in PCR to ensure reliable, high performance results. All products are manufactured under strictly clean condition and controlled thoroughly from lot to lot, and we proudly guarantee the stable and the consistent quality.

PCR / RT-PCR Products Selection Chart

AmpONE™ PCR Series

PCR Products	PCR Size	Extension Time	Resulting Ends	3' → 5' exo	Routine PCR	Multiplex PCR	Nested PCR	Long PCR	GC-Rich Template
*Taq	5 kb	1 min / kb	3'-A	-	★	☆	★	-	★
*α-Taq	20 kb	1 min / kb	3'-A	★	★	★	★	★	★
*HS-Taq	5 kb	1 min / kb	3'-A	-	★	★	☆	-	★
*α-Pfu	14 kb	2 min / kb	Blunt	★	★	★	★	★	★
Fast-Pfu	20 kb	30 sec / kb	Blunt	★	★	★	★	★	★

* Available with Master mix or Premix types.
**★ Recommended / ☆ Suitable

HyperScript™ RT-PCR Series

RT-PCR Products	Origin	1-step or 2-step	Synthesis Size (Max)	Synthesis Temp. range	RNase H Activity	Type
Reverse Transcriptase	M-MLV	2-step	13 kb	37 ~ 65 ℃	Reduced	Enzyme
First strand Synthesis Kit	M-MLV	2-step	13 kb	37 ~ 65 ℃	Reduced	All in one kit for cDNA synthesis
RT Master mix / Premix	M-MLV	2-step	8 kb	37 ~ 65 ℃	Reduced	2X solution Master mix / Premix
One-step RT-PCR Master mix / Premix	M-MLV	1-step	3 kb	37 ~ 65 ℃	Reduced	2X solution Master mix / Premix

AmpONE™ Taq / α-Taq / HS-Taq DNA Polymerase

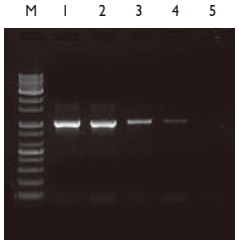
Taq DNA Polymerase

Description

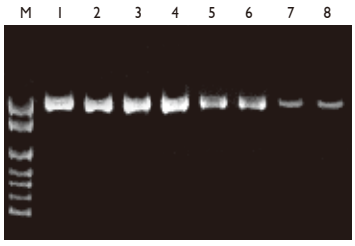
AmpONE™ Taq DNA polymerase is a recombinant enzyme derived from *Thermus aquaticus*, which is cloned and expressed in *E. coli* and possesses the same functions as the native enzyme. This enzyme is a thermostable DNA polymerase of 94 kDa and can be used in various experiments such as general PCR, RT-PCR and dideoxy-terminator-cycle sequencing. We have performed the quality control through activity test, purity test and endonuclease activity test.

Specification

- High fidelity, High purity
- Provides HQ buffer for the amplification of a higher order structure such as GC-rich templates
- No 3′→ 5′ exonuclease activity : addition of a single adenosine at 3′ end of the extension product
- Application : General PCR, TA-cloning, DNA sequencing, RT-PCR



Sensitivity of AmpONE™ Taq DNA polymerase on the quantity of template.
Template : human genomic DNA
M : 1 kb ladder
Lane 1 : 20 ng
Lane 2 : 10 ng
Lane 3 : 1 ng
Lane 4 : 100 pg
Lane 5 : 10 pg



Comparison of AmpONE™ Taq DNA polymerase with other companies. (1.9 kb)
Template : human genomic DNA (40 ng)
M : 1 kb ladder
Lane 1, 2 : AmpONE™ Taq
Lane 3, 4 : company A
Lane 5, 6 : company B
Lane 7, 8 : company C

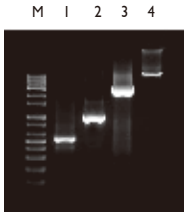
α-Taq DNA Polymerase

Description

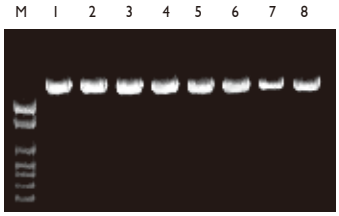
AmpONE™ α-Taq DNA polymerase is a modified enzyme mixed Taq DNA polymerase with Pfu DNA polymerase which has proof-reading activity and the ability to amplify a long PCR product (up to 20 kb). Although many other PCR enzymes with high fidelity, mainly derived from the *Pyrococcus furiosus* generally have a slow elongation rate, α-Taq DNA polymerase shows a fast elongation rate and more accurate PCR product formation.

Specification

- High fidelity, High purity
- Provides HQ buffer for the amplification of a higher order structure such GC-rich templates
- Addition of a single adenosine at 3′end of the extension product
- Application : General PCR, Protein expression, Long PCR (~20 kb), Multiplex PCR



Amplification of human genomic DNA. To check the amplification of various size, the used primers are designed in various region.
Template : human genomic DNA
M : 1 kb ladder
Lane 1 : 512 bp
Lane 2 : 1 kb
Lane 3 : 3.8 kb
Lane 4 : 20 kb



Comparison of AmpONE™ α-Taq DNA polymerase with other companies. (3.8 kb)
Template : human genomic DNA (40 ng)
M : 1 kb ladder
Lane 1, 2 : AmpONE™ α-Taq
Lane 3, 4 : company A
Lane 5, 6 : company B
Lane 7, 8 : company C

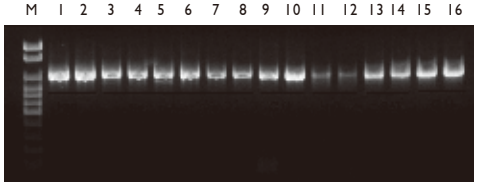
HS-Taq DNA Polymerase

Description

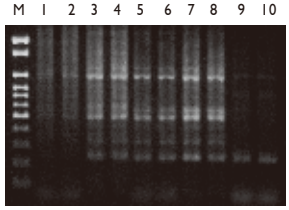
AmpONE™ HS-Taq DNA polymerase, a modified form of AmpONE™ Taq DNA polymerase, is designed to enhance the specificity, sensitivity and yield of DNA amplification. The activity of AmpONE™ HS-Taq DNA polymerase is rapidly restored during the initial denaturation step of PCR. By limiting polymerase activity prior to PCR cycling, the amplification of non-specifically annealed primers or primer dimers is reduced and target yield is increased.

Specification

- Reduced nonspecific amplification
- High specificity
- Enhanced sensitivity
- Convenient PCR set-up at room temperature
- Provides HQ buffer for the amplification of a higher order structure such GC-rich templates
- Application : Real-time PCR, RT-PCR, Multiplex PCR, TA-cloning



Comparison of AmpONE™ HS-Taq with other companies. (1 kb)
Template : human genomic DNA
M : 1 kb ladder
Lane 1, 2 : AmpONE™ Taq
Lane 3~8 : AmpONE™ HS-Taq
Lane 9, 10 : company A
Lane 11, 12 : company B
Lane 13, 14 : company C
Lane 15, 16 : company D



Hot start PCR using Catechol-O-methyl transferase (COMT) primer.
Template : human genomic DNA (50 ng)
M : 1 kb ladder
Lane 1, 2 : AmpONE™ Taq
Lane 3, 4 : company A
Lane 5, 6 : company B
Lane 7, 8 : company C
Lane 9, 10 : AmpONE™ HS-Taq

AmpONE™ α-Pfu / Fast-Pfu DNA Polymerase

α-Pfu DNA Polymerase

Description

AmpONE™ α-Pfu DNA polymerase is a recombinant modified enzyme derived from *Pyrococcus furiosus*, which is cloned and expressed in *E. coli*. AmpONE™ α-Pfu DNA polymerase is an enhanced version of Pfu DNA polymerase for robust and high-fidelity PCR that ideally suited for high-performance PCR applications than Pfu DNA polymerase. This enzyme enhances PCR product yields and available target length. It can be used to amplify genomic DNA targets up to 14 kb. AmpONE™ α-Pfu DNA polymerase possesses 3′- 5′ exonuclease (proofreading) activity. It is recommended for use in PCR that require high fidelity, especially suited to protein expression and site direct mutagenesis.

Specification

- High fidelity, High purity
- Enhanced PCR activity
- Long PCR (up to 14 kb)
- Decreased reaction time
- Very low contamination of *E.coli* genomic DNA
- Application : Protein expression, Site direct mutagenesis, Blunt-end cloning

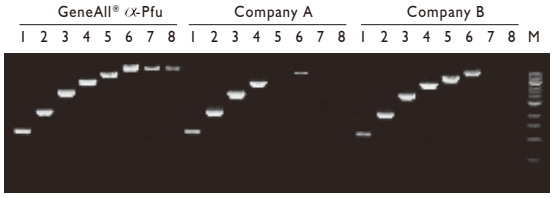


Fig. 1. Amplification of human genomic DNA. To check the amplification of various size, the used primers are designed in various region.

Lane 1 : 500 bp Lane 2 : 1 kb Lane 3 : 1.9 kb Lane 4 : 3.8 kb
Lane 5 : 5 kb Lane 6 : 7 kb Lane 7 : 10 kb Lane 8 : 14 kb
M : 1 kb ladder marker Template : Human genomic DNA

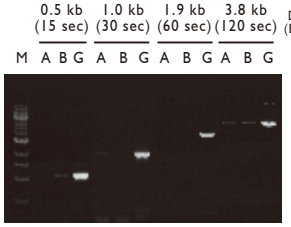
Fast-Pfu DNA Polymerase

Description

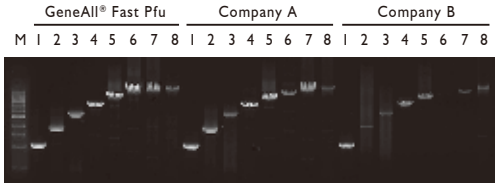
AmpONE™ Fast-Pfu DNA polymerase is a modified version of AmpONE™ Pfu DNA Polymerase, and it was designed to offer both robust performance and high fidelity of PCR. It has 5′→3′ polymerase activity as well as intrinsic 3′→5′ exonuclease activity, which acts as a proofreading ability. It produces blunt ends in final amplicon. AmpONE™ Fast-Pfu DNA polymerase shows 20 ~ 60 % reduced reaction time and 4 fold higher accuracy than Pfu DNA polymerase. Also, this polymerase increases the yield of PCR product and the amplifiable length of target gene in comparison with conventional Pfu DNA polymerase, thus it can be used for long-DNA amplification up to 20 Kb.

Specification

- High fidelity, High purity
- Enhanced PCR activity
- Long PCR (up to 20 kb)
- Fast reaction speed (30 sec / kb)
- Very low contamination of *E.coli* genomic DNA
- Application : Protein expression, Site direct mutagenesis, Blunt-end cloning



Comparison of AmpONE™ Fast-Pfu DNA polymerase with other Pfu DNA polymerse. To check the amplification of various size per extension time, the used primers are designed in various region.
A : Company A - Pfu DNA polymerase
B : Company B - Pfu DNA polymerase
G : AmpONE™ Fast-Pfu DNA polymerase
M : 100 bp ladder



Comparison of AmpONE™ Fast-Pfu DNA polymerase with other companies.
To check the amplification of various size, the used primers are designed in various region.

Lane 1 : 500 bp Lane 2 : 1 kb Lane 3 : 1.9 kb Lane 4 : 3.8 kb
Lane 5 : 5 kb Lane 6 : 7 kb Lane 7 : 10 kb Lane 8 : 20 kb
M : 1 kb ladder Template : Human β-globin (50 ~200 ng)

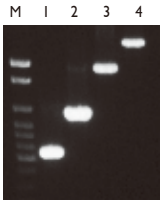
AmpONE™ Taq / α-Taq / HS-Taq / α-Pfu Premix

Description

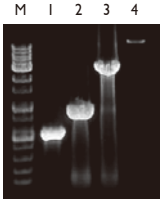
AmpONE™ Taq / α-Taq / HS-Taq / α-Pfu Premix contains all reaction components required for PCR, such as reaction buffer, dNTP, gel loading dye, stabilizer and sediment in addition to DNA polymerase. It is recommended to use in routine PCR (below 10 kb), TA cloning, blunt-end cloning and primer extension. This mixture is stable for 1 year at -20°C or 2 weeks at room temperature. It is ready-to-use mixture pipetting steps are minimized, reducing the possibility of errors and contamination. Room temperature reaction setup using this mixture is fast and easy. Included loading dye migrates through 1.0 % agarose gels run in 0.5X TBE at approximately the same rate as DNA 300 bp in length.

Specification

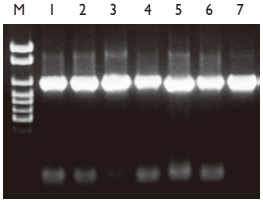
- Lyophilized form or 2X solution form
- 8-strip PCR tube form
- Use of two tracking dye (1% agarose gel, ~50 bp and ~4 kb)
- Ready to use, Fewer pipetting steps
- Stable for 1 year at -20°C or 2 weeks at RT
- Offered with PCR tube rack



Amplification of AmpONE™ Taq Premix. To check the amplification of various size, the used primers are designed in various region.
Template : human genomic DNA (27 ng)
M : 1 kb ladder
Lane 1 : 514 bp Lane 3 : 1.9 kb
Lane 2 : 1 kb Lane 4 : 3.8 kb



Amplification of AmpONE™ α-Taq Premix. To check the amplification of various size, the used primers are designed in various region.
Template : human genomic DNA (27 ng)
M : 1 kb ladder
Lane 1 : 514 bp Lane 3 : 3.8 kb
Lane 2 : 1 kb Lane 4 : 14 kb



Comparison of AmpONE™ Taq Premix with other companies.
Template : human genomic DNA (40 ng)
M : 1 kb ladder
Lane 1~3 : AmpONE™ Taq Premix
Lane 4 : company A
Lane 5 : company B
Lane 6 : company C
Lane 7 : company D

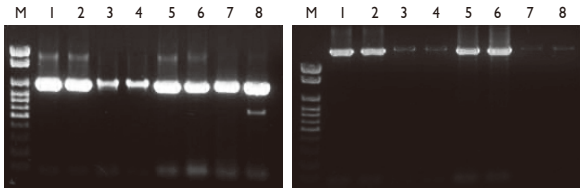
AmpMaster™ Taq / α-Taq / HS-Taq / α-Pfu

Description

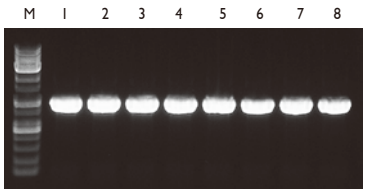
AmpMaster™ series contain all reaction components required for PCR, such as reaction buffer, dNTP, gel loading dye, stabilizer and sediment in addition to Taq / α-Taq / HS-Taq / α-Pfu DNA polymerase. It is recommended for use in routine PCR (below 10 kb), TA cloning, blunt-end cloning and primer extension. AmpMaster™ are stable for 1 year at -20°C or 2 months at 4°C. It is ready-to-use mixture pipetting steps are minimized, reducing the possibility of errors and contamination. Room temperature reaction setup using this mixture is fast and easy. Included loading dye migrates through 1.0 % agarose gels run in 0.5X TBE at approximately the same rate as DNA 300 bp in length.

Specification

- 2X solution type
- Use of two tracking dye (1 % agarose gel, ~50 bp and ~4 kb)
- Easy reaction setup
- Fewer pipetting steps
- Stable for 1 year at -20°C or 2 months at 4°C



Comparison of AmpMaster™ α-Taq with other companies. (1.9, 14 kb)
Template : human genomic DNA (100 ng)
M : Lambda-HindIII
Lane 1, 2 : AmpMaster™ α-Taq
Lane 3, 4 : company A
Lane 5, 6 : company B
Lane 7, 8 : company C



Consistency test of AmpMaster™ Taq.
Template : human genomic DNA (27 ng)
M : 1 kb plus ladder
Lane 1 ~ 8 : 1 kb

HyperScript™ for Reverse Transcription

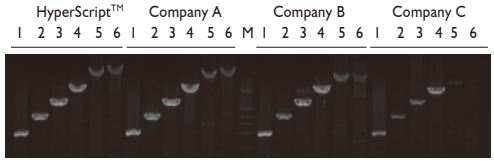
Reverse Transcriptase

Description

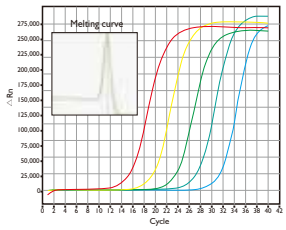
HyperScript™ Reverse Transcriptase is a new engineered M-MLV Reverse Transcriptase with reduced RNase H activity and increased thermal stability. It can be used to synthesize first-strand cDNA at a temperatures range up to 65°C. So it provides increased specificity, higher yields of cDNA and more full-length product than other reverse transcriptases. It makes that up to 13 kb in length can be synthesized accurately. The amount of starting material can be adjusted from 1 pg to 2 ug of total RNA. cDNA synthesis can be performed using either total RNA or the poly(A)-selected RNA, primed with oligo dT, random primer or a gene specific primer.

Specification

- New M-MLV originated Reverse Transcriptase
- Thermostable RTase (up to 65°C)
- Enhanced Performance : highly efficient and sensitive transcription of RNA amounts
- Full-length cDNA synthesis (up to 13 kb)
- High reproducibility
- Application : RT-PCR, Cloning for protein expression, cDNA library



Comparison of HyperScript™ RTase with other companies using primer set of various size. RT-PCR reactions were performed according to each manufacturer's recommendations.
Lane 1 : 489 bp
Lane 2 : 1024 bp
Lane 3 : 2041 bp
Lane 4 : 3543 bp
Lane 5 : 6936 bp(7 kb)
Lane 6 : 9816 bp(10 kb)
Lane M : 1 kb ladder



Real-time PCR of Lrp2 gene of mouse RNA using HyperScript™ RT mix. The accuracy of qRT-PCR is demonstrated by R2 value = 0.999. (10-fold diluted RNAs from 1000 to 0.1 ng)

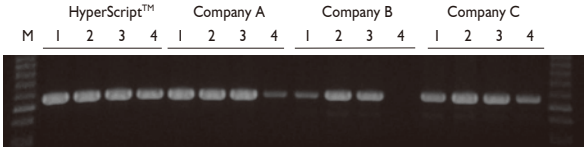
First strand Synthesis Kit

Description

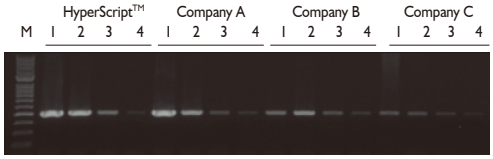
HyperScript™ First strand Synthesis kit is ideally organized for synthesizing reaction of first strand cDNA from purified mRNA or total RNA. This kit provides all components for cDNA synthesis, including reverse transcriptase, RNase inhibitor, oligo dT, random hexamer, dNTPs and nuclease free water. From 1 pg to 2 ug of starting RNA can be applied as template and RNA-target up to 13 kb in length can be synthesized accurately. cDNA synthesis can be performed using eithertotal RNA or poly(A)-selected RNA, primed with oligo dT, random primer or a gene specific primer. The included HyperScript™ Reverse Transcriptase is an engineered M-MLV Reverse Transcriptase with reduced RNase H activity and increased thermal stability. This enzyme can be used stably at temperatures up to 65°C for synthesizing of first-strand cDNA.

Specification

- New M-MLV originated Reverse Transcriptase
- Include all components necessary for cDNA synthesis
- Thermostable RTase (up to 65°C)
- Enhanced Performance : highly efficient and sensitive transcription of RNA amounts
- Reduced RNase H activity
- Full-length cDNA synthesis (up to 13 kb)
- High reproducibility



Comparison of RT-PCR reaction with other companies at various temperature.
Template : Mouse kidney total RNA
Lane 1 : 37°C Lane 2 : 42°C Lane 3 : 50°C Lane 4 : 60°C



Comparison of HyperScript™ First strand Synthesis reaction with other companies on the quantity of RNA.
Template of 552 bp : Mouse kidney total RNA.
Lane1 : 1/10(100 ng)
Lane 2 : $1/10^2$(10 ng)
Lane 3 : $1/10^3$(1 ng)
Lane 4 : $1/10^4$(100 pg)
M : 200 bp ladder

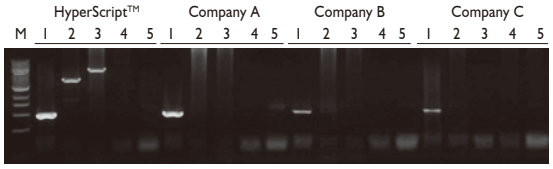
RT Master mix / Premix

Description

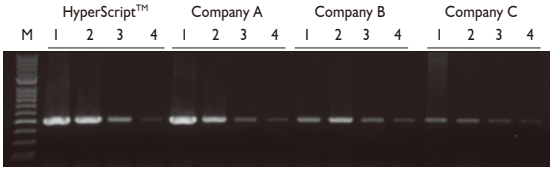
HyperScript™ RT Master mix is a 2X pre-mixed solution ready to use for Reverse Transcriptase (RT) reaction. The concentration of this Master mix is adjusted to 2X, and so the reaction volume can be adjusted according to the experimental purpose.
HyperScript™ RT Premix is a 2X pre-mixed solution for Reverse Transcriptase (RT) reaction, which is put into 8-strip tube by aliquots, and ready to use. This Master mix and premix contain all components required for RT reaction such as reaction buffer, dNTPs, RNase inhibitor and stabilizer in addition to the enzyme which is an advanced version of M-MLV RTase. The contained Reverse Transcriptase has an increased thermal-stability, high accuracy and productivity, and this makes that up to 8 kb in length can be synthesized accurately. It can be applied to general cDNA synthesis and qPCR as well.

Specification

- Based on HyperScript™ RTase
- Thermostable RTase (up to 65°C)
- 2X solution type
- Extension up to 8 kb
- Available with Master mix or Premix types
- Fewer pipetting steps, ready to use
- Applicable to qPCR



Comparison of HyperScript™ RT Master mix reaction with other companies on the various size.
Template : Mouse kidney total RNA
Lane 1 : 489 bp Lane 2 : 2041 bp Lane 3 : 3543 bp Lane 4 : 6936 bp Lane 5 : 9816 bp



Comparison of HyperScript™ RT Premix reaction with other companies on the quantity of RNA.
Template : Mouse kidney total RNA
Lane 1 : 1/10 (100 ng) Lane 2 : $1/10^2$ (10 ng) Lane 3 : $1/10^3$ (1 ng) Lane 4 : $1/10^4$ (100 pg)
M : 100 bp ladder

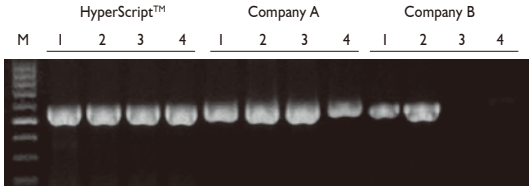
One-step RT-PCR Master mix / Premix

Description

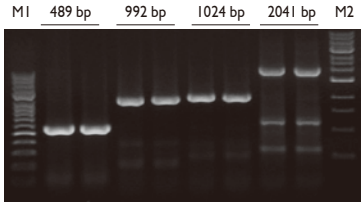
HyperScript™ One-step RT-PCR Master mix and Premix are 2X premix ready to use for Reverse Transcription (RT) reaction and Polymerase Chain Reaction (PCR). It contains HyperScript™ RTase and AmpONE™ HS-Taq DNA polymerase and both RT and PCR reactions are carried out successively in a single tube. AmpONE™ HS-Taq DNA polymerase remains inactivated until RT reaction is completed, and it is turned on at high temperature of PCR cycle. AmpONE™ HS-Taq DNA polymerase can amplify the fragment up to 3 kb in length. The reaction volume can be adjusted according to the experimental purpose. HyperScript™ One-step RT-PCR Master mix and Premix contain all reaction components required for RT and PCR, such as reaction buffer, dNTPs, RNase inhibitor and stabilizer in addition to enzymes, except primers and templates.

Specification

- Based on HyperScript™ RTase
- Thremostable RTase (up to 65°C)
- 2X solution form
- Highly specific products (using AmpONE™ HS-Taq)
- High sensitivity
- Extension up to 3 kb
- Available with Master mix or Premix types
- Minimize RNase contamination and experimental errors
- Ready to use



Comparison of HyperScript™ One-step RT-PCR reaction with other companies at various temperature.
Template : Mouse kidney total RNA
Lane 1 : 45°C Lane 2 : 50°C Lane 3 : 55°C Lane 4 : 60°C



Amplification of HyperScript™ One-step RT-PCR Master mix with AmpONE™ HS-Taq DNA polymerase. To check the amplification of various size of target gene.
Template : 93.7 ng of Mouse kidney total RNA
M1 : 100 bp ladder M2 : 1 kb ladder

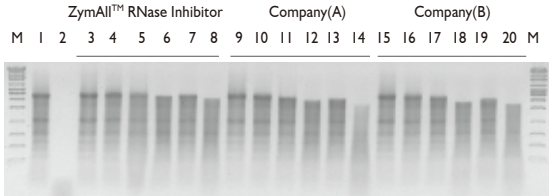
ZymAll™ RNase Inhibitor

Description

ZymAll™ Ribonuclease (RNase) Inhibitor is purified by affinity chromatography from a recombinant strain of *E. coli* expressing a cloned porcine liver gene. The purified 52 kDa protein is acidic enzyme. ZymAll™ RNase Inhibitor exerts its inhibitory effect by noncovalently binding to RNase at a 1:1 ratio. This enzyme is active against RNase A, RNase B and RNase C.

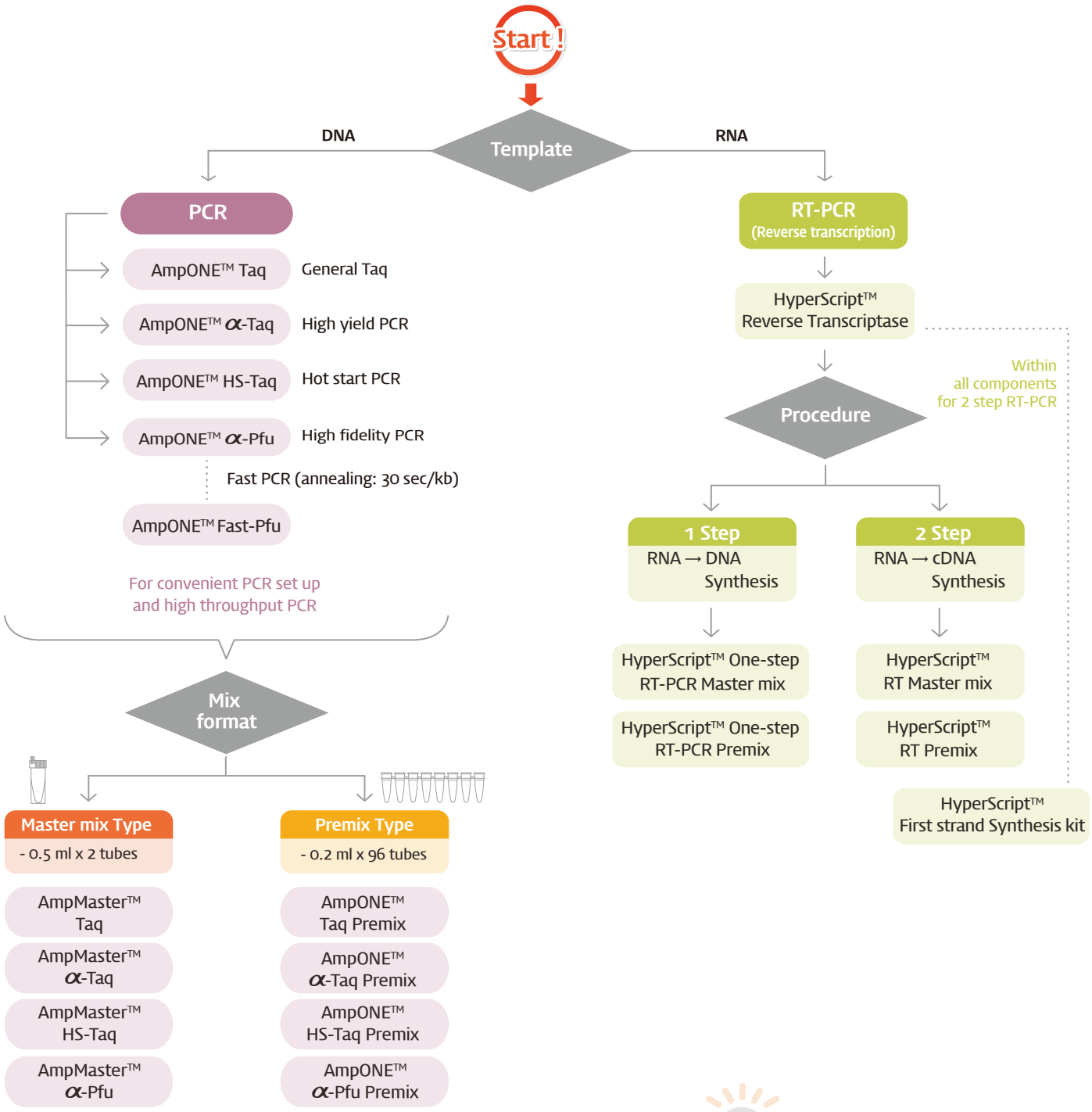
Specification

- Concentration : 40 U/ul
- Removal RNase contamination and experimantal errors
- Applicable to cDNA synthesis



Comparison test of RNA degradation by the concentration of RNase Inhibitor
Lane 1 : Control, Template RNA 1 ug Lane 2 : RNase only
Lane 3, 9, 15 : 40 U (w/o RNase) Lane 4, 10, 16 : 40 U
Lane 5, 11, 17 : 20 U Lane 6, 12, 18 : 4 U
Lane 7, 13, 19 : 10 U Lane 8, 14, 20 : 2 U

PCR / RT-PCR Selection Guide



Special Additive for PCR

HQ Buffer

HQ Buffer is an innovative PCR additive that facilitates amplification of difficult templates. This special reagent will often enable or improve a suboptimal PCR caused by GC-rich sequences. We recommend to use of HQ Buffer in PCR reaction of long-size target.

BB Solution

BB Solution is designed for easy loading and tracking of PCR products in agarose gels. When using BB Solution, the PCR products can be directly loaded onto an agarose gel without prior addition of a PCR loading buffer and gel tracking dyes. The convenient BB Solution reduces pipetting steps and risk of contamination. And it contains two dyes (orange and blue) that help estimation of DNA migration distance.

Ordering Information

Products	Size	Scale	Cat. No.	Type
GeneAll® AmpONE™ *for PCR amplification*				
Taq DNA polymerase		250 U	501-025	(2.5 U/ μℓ)
		500 U	501-050	
		1,000 U	501-100	
α-Taq DNA polymerase		250 U	502-025	(2.5 U/ μℓ)
		500 U	502-050	
		1,000 U	502-100	
α-Pfu DNA polymerase		250 U	504-025	(2.5 U/ μℓ)
		500 U	504-050	
		1,000 U	504-100	
Fast-Pfu DNA polymerase		250 U	505-025	(2.5 U/ μℓ)
		500 U	505-050	
		1,000 U	505-100	
Hotstart Taq DNA polymerase		250 U	531-025	(2.5 U/ μℓ)
		500 U	531-050	
		1,000 U	531-100	
Taq Premix	96 tubes	20 μℓ	521-200	lyophilized
		50 μℓ	521-500	
		20 μℓ	526-200	solution
		50 μℓ	526-500	
α-Taq Premix	96 tubes	20 μℓ	522-200	lyophilized
		50 μℓ	522-500	
		20 μℓ	527-200	solution
		50 μℓ	527-500	
HS-Taq Premix	96 tubes	20 μℓ	525-200	solution
		50 μℓ	525-500	
		20 μℓ	520-200	lyophilized
α-Pfu Premix	96 tubes	50 μℓ	523-500	solution
Taq Premix (w/o dye)	96 tubes	20 μℓ	524-200	lyophilized
dNTP Mix		500 μℓ	509-020	2.5 mM each
dNTP Mix (set of dATP, dCTP, dGTP and dTTP)		1 ml x 4 tubes	509-040	100 mM

Products	Size	Scale	Cat. No.	Type
GeneAll® AmpMaster™ *for PCR amplification*				
Taq Master mix		0.5 ml x 2 tubes	541-010	solution
		0.5 ml x 10 tubes	541-050	
α-Taq Master mix		0.5 ml x 2 tubes	542-010	solution
		0.5 ml x 10 tubes	542-050	
HS - Taq Master mix		0.5 ml x 2 tubes	545-010	solution
		0.5 ml x 10 tubes	545-050	
α-Pfu Master mix		0.5 ml x 2 tubes	543-010	solution
		0.5 ml x 10 tubes	543-050	

* Each dNTP is available

GeneAll® HyperScript™ *for Reverse Transcription*			
Reverse Transcriptase	10,000 U	601-100	solution
RT Master mix	0.5 ml x 2 tubes	601-710	solution
RT Master mix with oligo $(dT)_{20}$	0.5 ml x 2 tubes	601-730	solution
RT Master mix with random hexamer	0.5 ml x 2 tubes	601-740	solution
RT Premix	96 tubes, 20 μℓ	601-602	solution
RT Premix with oligo $(dT)_{20}$	96 tubes, 20 μℓ	601-632	solution
RT Premix with random hexamer	96 tubes, 20 μℓ	601-642	solution
One-step RT-PCR Master mix	0.5 ml x 2 tubes	602-110	solution
One-step RT-PCR Premix	96 tubes, 20 μℓ	602-102	solution
First strand Synthesis Kit	50 reaction	601-005	solution
ZymAll™ RNase Inhibitor	10,000 U	609-010	solution
ZymAll™ RNase Inhibitor	4,000 U	609-004	solution

PCR / RT-PCR Product Citations

01 Targeted chromosomal deletions in human cells using zinc finger nucleases. Genome Res. 2010, 20: 81-89.

02 Cell Adhesion-dependent Cofilin Serine 3 Phosphorylation by the Integrin-linked Kinase·c-Src Complex. J BIOL CHEM. April 11, 2008 283, 10089-10096.

03 Highly Heterogeneous Soil Bacterial Communities around Terra Nova Bay of Northern Victoria Land, Antarctica. PLoS ONE. March 23, 2015 10(3) : e0119966.

04 Development of Lectin-Linked Immunomagnetic Separation for the Detection of Hepatitis A Virus. Viruses 2014, 6(3), 1037-1048.

05 NdgR, a Common Transcriptional Activator for Methionine and Leucine Biosynthesis in Streptomyces coelicolor. J BACTERIOL. December 2012 vol. 194 no. 24 6837-6846 .

Bridging the World GeneAll

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