

Meet the Next Generation of PCR, RT-PCR, qPCR abm's Enzymes



3X Faster

BlasTaq™ DNA Polymerase



1300X Lower Error Rates

MegaFi™ DNA Polymerase



Stable Up to 60-72°C

OneScript® Hot RTase



Rapid Extension Rates

Robust Performance

BlasTaq™ 2X qPCR MasterMix

BlasTaq™ DNA Polymerase

3X Faster than regular Taq

Blast through a routine 2 hour PCR run in only 20 min.

- 6 kb/min extension speed
- 40-70% less time needed than regular Taq
- Superior Sensitivity, Yields and Robust performance
- TA cloning



6 kb/min extension speed

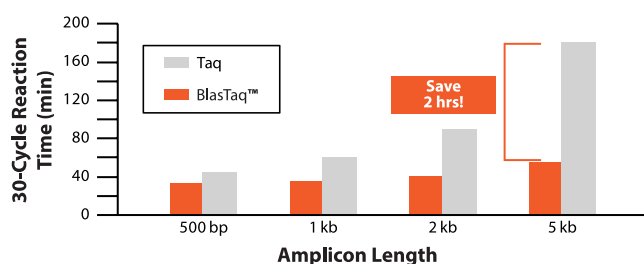


40-70% less time than Taq



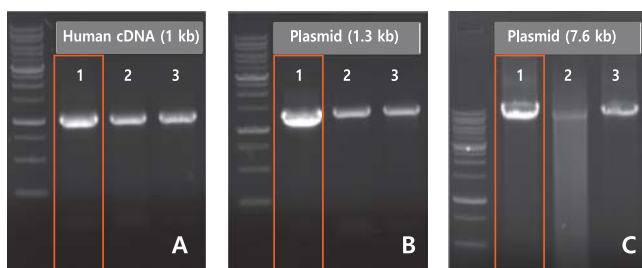
Superior sensitivity

Super Fast Extension Speeds



BlasTaq™ DNA Polymerase enables extension speeds as fast as 6 kb/min. Total reaction times for abm's BlasTaq™ DNA Polymerase (Cat. No. G894) and Taq were determined for the amplification of different sized amplicons: 500bp, 1 kb, 2 kb, and 5 kb. Reaction times are based on a 30-cycle program using the recommended reaction protocol for each enzyme.

Highly Robust

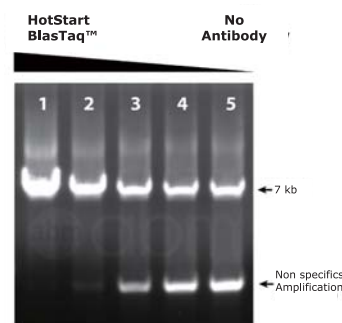


PCR amplification using abm's BlasTaq™ DNA Polymerase (Cat. No. G894) (column 1) of various targets vs. competitor polymerases (column 2 and 3) followed by electrophoresis on a 1% agarose gel. A) 1 kb target from Human cDNA. B) 1.3 kb target from plasmid DNA. C) 7.6 kb target from plasmid DNA.

BlasTaq™ HotStart DNA Polymerase

- No non-specific amplification or primer-dimers
- Improves yield of desired product
- Simplifies reaction setup

Eliminates Non-specific Amplification



BlasTaq™ HotStart DNA Polymerase eliminates non-specific amplification. abm's BlasTaq™ HotStart DNA Polymerase (Cat. No. G595) was used to amplify a 7 kb target. The antibody concentration was decreased incrementally from lanes 1-5. Lane 1 is our BlasTaq™ HotStart formulation and lane 5 contains no antibody.

G894	BlasTaq™ DNA Polymerase	500 rxn/20ul
G895.5	BlasTaq™ 2X PCR MasterMix	500 rxn (4 x 1.25ml)
G895	BlasTaq™ 2X PCR MasterMix	1000 rxn (8 x 1.25 ml)
G595	BlasTaq™ HotStart DNA Polymerase	500 rxn/20ul
G891	BlasTaq™ 2X qPCR MasterMix	5 ml (4 x 1.25 ml)
G892	BlasTaq™ 2X qPCR MasterMix	25 ml (5 x G891)
G890	BlasTaq™ Probe 2X qPCR MasterMix	4 x 1.25 ml
G598	BlasTaq™ One-Step RT-qPCR*	100 rxn
G596	BlasTaq™ Probe One-Step RT-qPCR*	100 rxn

*Contains OneScript™ Plus Reverse Transcriptase (Cat. No. G237)

MegaFi™ Fidelity DNA Polymerase



1300X Lower Error Rates, 3X more Affordable!

High fidelity & Ultra-low error rates

- Ultra high-fidelity PCR ; 1300X lower error rates than regular Taq
- Next Generation Sequencing
- Molecular cloning
- Diagnostics
- Amplifies difficult templates
- Effective in long-range PCR
- 3X more cost-effective than competing brands



1300X higher fidelity than Taq

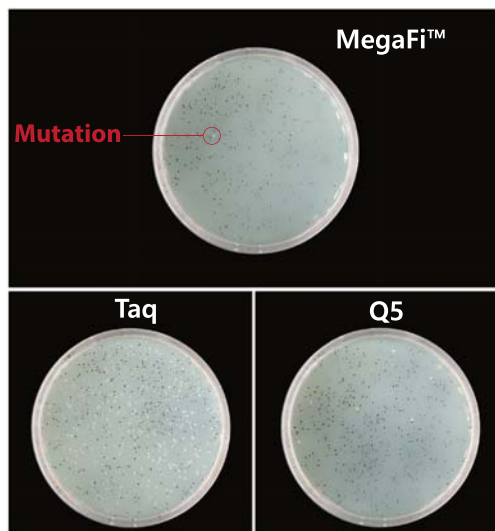


Amplifies difficult templates



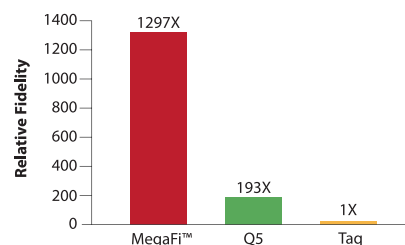
Effective in long-range PCR

Ultra-Low Error Rates



MegaFi™ DNA Polymerase is THE BEST high fidelity DNA polymerase. A lacZa-containing sequence was amplified using various DNA polymerases, subcloned, and plated on X-gal-containing media. Colonies without PCR amplified lacZa mutations appear dark blue, while those that have PCR introduced frameshift mutations appear white.

Superior Fidelity



Blue/White Screening	Total colonies	White colonies	Error rate/base *	Fold over Taq
Taq	30,192	17,589	$2.7 \times 10^{-4} \pm 0.8 \times 10^{-4}$ (1per 3,700 bases)	--
Q5	22,296	119	$1.4 \times 10^{-6} \pm 0.6 \times 10^{-6}$ (1per 710,000 bases)	193 ± 101
MegaFi™ Fidelity	33,880	62	$2.1 \times 10^{-7} \pm 0.6 \times 10^{-7}$ (1per 4,800,000 bases)	1297 ± 371

MegaFi™ DNA Polymerase has ~1300X higher fidelity than other enzymes on the market. abm's MegaFi™ Fidelity DNA Polymerase (Cat. No. G896) has the highest accuracy rate compared to other DNA polymerases as tested using blue/white colony screening. Shown as relative fidelity compared to Taq DNA Polymerase (Taq = 1X). PCR cycle number and mutations resulting in non-phenotypic changes are accounted for.

G896	MegaFi™ Fidelity DNA Polymerase	500 rxn/20ul
G897.5	MegaFi™ Fidelity 2X PCR MasterMix	500 rxn (4 x 1.25 ml)
G897	MegaFi™ Fidelity 2X PCR MasterMix	1000 rxn (8 x 1.25 ml)
G597	MegaFi™ One-Step RT-PCR *	100 rxn

*Contains OneScript™ Hot Reverse Transcriptase (Cat. No. G593)



Sample 신청

e : info@itsbio.co.kr T : 02-3462-8658

OneScript® Plus Reverse Transcriptase

High Thermostability & Highly Robust

Excellent Elongation Ability

- High thermostability at 50-55°C
- Synthesize 15 kb RNA Templates
- Higher cDNA yields
- GC-rich RNA templates
- 10-15 minutes reaction time



High thermostability at 50-55°C

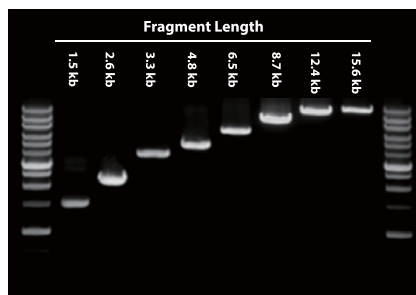


Synthesize 15 kb RNA Templates



10-15 minutes reaction time

Excellent Elongation Ability:



OneScript® Plus Reverse Transcriptase can elongate RNA templates up to 15 kb in length.

OneScript® Plus Reverse Transcriptase (Cat. No. G237) was used in a reaction with a range of human RNA fragments. The resulting synthesized cDNA was followed by PCR and visualized on a 1% agarose gel.

miRNA All-In-One cDNA Synthesis Kit

Complete system for efficient synthesis of first strand miRNA from total RNA templates.

- **Just two components** : 2X miRNA cDNA Synthesis SuperMix & Enzyme Mix
- including : Poly(A) Polymerase
abm's OneScript® Plus Reverse Transcriptase,
miRNA Oligo d(T) adapter
RNaseOFF Ribonuclease Inhibitor

G237	OneScript Plus Reverse Transcriptase	100 rxn
G236	OneScript Plus cDNA Synthesis Kit	100 rxn
G898	miRNA All-In-One cDNA Synthesis Kit	20 rxn

abm's Reverse Transcriptase Selection Guide

	Max. cDNA Elongation	Thermostability	Optimal Thermostability	Reaction Time	Inhibitor / Contamination Resistance	Tolerance to Complex Templates
OneScript® Hot	1kb 5kb 10kb 15kb 20kb	50 ~ 80°C	60°C	10min	★★★★★	★★★★★
OneScript® Plus	1kb 5kb 10kb 15kb 20kb	50 ~ 55°C	50°C	15min	★★★	★★★



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OneScript® Hot Reverse Transcriptase



The New Gold Standard in cDNA Synthesis

Outstanding Thermostability

- Thermostable from 60-72°C
- Transcribes degraded samples and resists inhibitors/contaminants
- Provides high cDNA yields from difficult or ultra-low RNA samples
- GC-rich templates, long, degraded, or contaminated RNA samples



Extreme thermostability
at 50-80°C

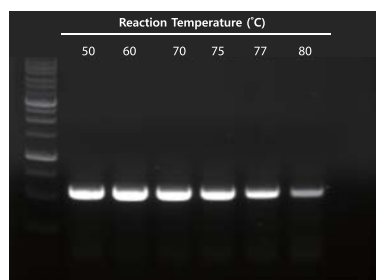


Transcribes degraded
samples and resists
inhibitors/contaminants



High cDNA yields from
difficult or ultra-low
RNA samples

Outstanding Thermostability



OneScript® Hot Reverse Transcriptase has exceptional thermostability.

OneScript® Hot Reverse Transcriptase (Cat. No. G593) was used in a 10 min. reaction with RNA template at temperatures ranging from 50 and 80°C. The resulting synthesized cDNA was followed by PCR and visualized on a 1% agarose gel.

All-In-One 5X RT MasterMix



Easy one-step setup
Reduces sample
handling errors

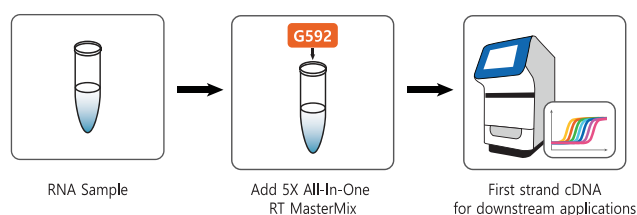


gDNA Removal
Includes
temperature-sensitive DNase



High cDNA yields
Even with difficult or
ultra low RNA samples

From RNA template to cDNA, completely hassle-free!

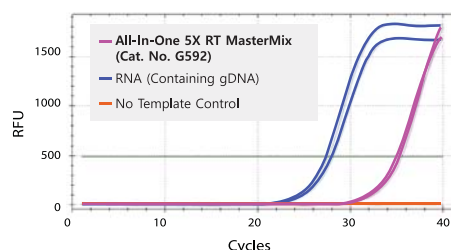


MegaFi™ One-Step RT-PCR

- Highly sensitive and specific reverse transcription and high fidelity PCR amplification in a single reaction tube
- Enzyme mix ; OneScript® Hot Reverse Transcriptase, MegaFi™ Fidelity DNA Polymerase, RNaseOFF Ribonuclease Inhibitor, gel loading dye
- One-Step 2X RT-PCR Buffer : all other necessary reagents

G593	OneScript® Hot Reverse Transcriptase	100 rxn
G594	OneScript Hot RT cDNA Synthesis Kit	100 rxn
G597	MegaFi One-Step RT-PCR Kit	100 rxn
G592	All-In-One 5X RT MasterMix	100 rxn

Accurate gDNA-free cDNA synthesis



All-in-One 5X RT MasterMix (Cat. No. G592) ensures accurate qPCR results where contaminating gDNA would otherwise result in artificially-early Ct values. RNA samples contaminated with gDNA were reverse-transcribed for 25 min with All-in-One 5X RT MasterMix. 1ul of RT product was then used in qPCR to assay amplification of a GAPDH target.

qPCR and One-Step RT MasterMixes

Enjoy World-Class Standards in Performance

Rapid extension rates and Robust performance

- Highly Sensitive
- Simple Workflows
- Fast Results
- Wholesale Prices



Premixed and ready-to-use

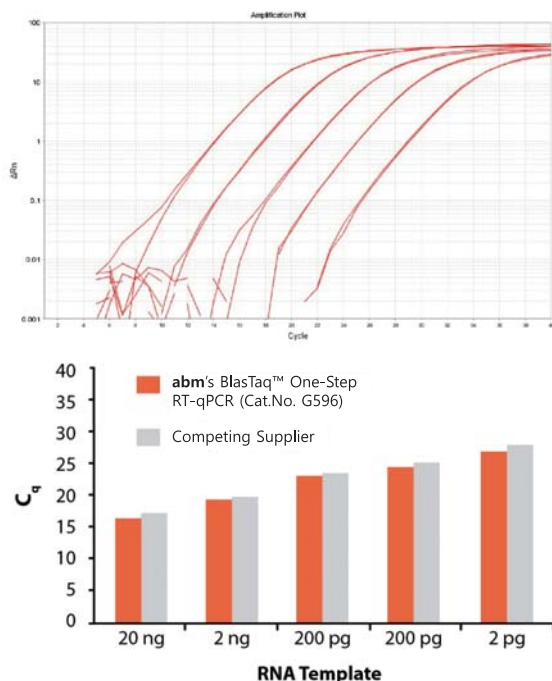


Simple and streamlined
for high-throughput use



Reduce handling errors

Outstanding Thermostability



BlasTaq™ Probe One-Step RT-qPCR has superb sensitivity and signal-to-noise ratio. 20 µl One-Step RT-qPCR reactions (20 ng, 2 ng, 200 pg, 20 pg, or 2 pg of RNA per reaction) were carried out with abm's BlasTaq™ Probe One-Step RT-qPCR (Cat. No. G596) for GAPDH amplification.

- Enable streamlined protocol in a simple reaction set-up
- Allow accurate quantification of a variety of gene targets
- Reduce pipetting steps to minimize the risk of contamination
- Compatible with most real-time PCR instruments



Dye-based qPCR

G891	BlasTaq™ 2X qPCR MasterMix	500 rxn (4 x 1.25 ml)
G892	BlasTaq™ 2X qPCR MasterMix	2,500 rxn (5 x G891)

Probe-based qPCR

G890	BlasTaq™ Probe 2X qPCR MasterMix	500 rxn (4 x 1.25 ml)
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One-Step RT

G596	BlasTaq™ Probe One-Step RT-qPCR	100 rxn
G597	MegaFi™ One-Step RT-PCR *	100 rxn

* Contains OneScript™ Hot Reverse Transcriptase (Cat. No. G593)



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Results in Only 1 Hour

Ready-to-use



Get accurate titer results in only 1 hour with abm’s collection of viral titer kits for adeno-associated virus (AAV), lentivirus, and retrovirus.

Simple, sensitive, and ready-to-use, abm’s viral titer kits contain our next generation PCR Polymerases or Reverse Transcriptases for the best enzyme performance on the market.



Results in only 1 hour

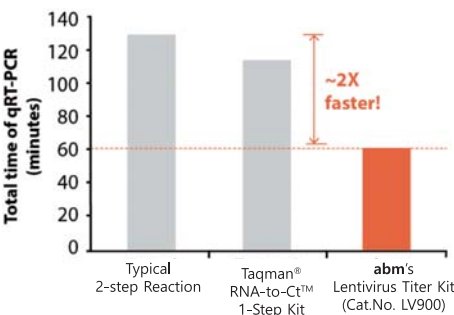


No non-specific (NTC) amplification



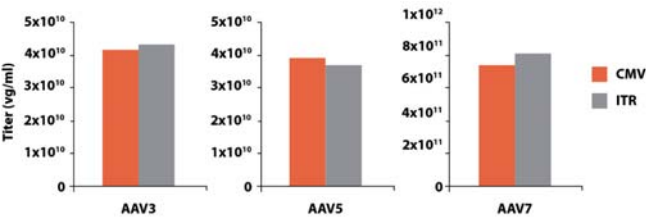
Ready-to-use
no purification step needed

Results in only 1 hour



abm’s qPCR Lentivirus Titer Kit provides results in only 1 hour. Total qRT-PCR reaction times of abm’s qPCR Lentivirus Titer Kit (Cat. No. LV900), Taqman® RNA-to-Ct™ 1-Step Kit, and time required for a typical 2-step reaction were compared.

Accurate Titers



abm’s qPCR AAV Titer Kit provides consistent, and accurate titer measurements. The titers of AAV3, 5, and 7 were measured using abm’s qPCR AAV Titer Kit (Cat. No. G931) containing primers for both CMV and ITR. The titer results for each serotype show there is no significant difference in real-time PCR amplification for CMV or ITR.

qPCR Lentivirus Titer Kit

- Saves time and eliminates inaccuracy: No RNA purification
- Reduces variability: Ready-to-use reagent mix
- qRT-PCR in one step: More sensitive and accurate than other methods
- No NTC amplification: Eliminates NTC signals due to our unique primer design

qPCR AAV Titer Kit qPCR Retrovirus Titer Kit

- One-step assay by qPCR which does not require additional lysis, and can be completed under one hour.
- **High sensitivity and Specificity**; minimal non-specific background and better overall performance
- ROX reference dye is provided separate from the MasterMix, making this kit universally compatible with most qPCR instruments.



LV900	qPCR Lentivirus Titer Kit	100 rxn
G931	qPCR AAV Titer Kit	100 rxn
G949	qPCR Retrovirus Titer Kit	100 rxn

Mycoplasma PCR Detection Kit

Enjoy Superior Performance at Lower Costs!

Highly Specific & Sensitive

- **Highly specific and sensitive detection** of 200+ strains of **Mycoplasmas** in less than 2 hours.
- Minimize false positives
- Ensure quick and reliable routine screening of cell cultures.



A recent official publication by a national public health agency found that our kit out-performs Sigma and Lonza's kits while being 6X less expensive than ATCC's kit (Russell et al., 2020).



Get results in only 1 hr



Detects 200+
Mycoplasma species

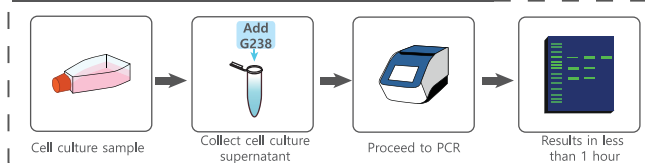


Easy-to-use
(no DNA isolation needed)

Kit Features:

- **No DNA isolation needed:** Directly add cell culture supernatants to PCR reaction
- **Rapid and Comprehensive:** Detect 200+ Mycoplasma species in less than 2 hours
- **Highly Sensitive and Specific:** Demonstrated the highest true positive and lowest false positive rates compared to competing kits
- **Easy-to-use:** Includes ready-to-use primer mix and positive control
- **6X less expensive per sample** compared to competing kits (Russell et al., 2020)
- **Out-performs** Sigma and Lonza's kits (Russell et al., 2020)

abm's Mycoplasma PCR Detection Kit (Cat. No. G238)

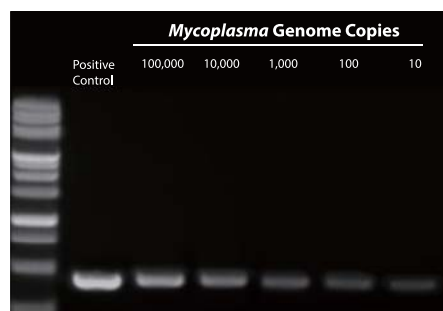


Customer Testimonial

"The mycoplasma detection kit we received from ABM worked very well. It was fast, easy to use, and, with the included controls, the results were very easy to interpret. We will purchase this kit again the next time we are in need of mycoplasma detection."

- Haylie Romero, University of California San Diego

Sensitive Detection



abm's Mycoplasma PCR Detection Kit can detect samples containing as low as 10 genome copies of Mycoplasma. abm's Mycoplasma PCR Detection Kit (Cat. No. G238) was used to detect samples containing ~10 to 100,000 genome copies of Mycoplasma. Presence of Mycoplasma was confirmed as a 450 bp band.

Mycoplasma Elimination Cocktail

- Direct addition of cocktail to cell culture medium
- Effectively eliminates over 70 types of mycoplasma species
- Not cytotoxic to most mammalian cell lines.

G238	Mycoplasma PCR Detection Kit	100 rxn
G398	Mycoplasma Elimination Cocktail	1.0 ml (3.5 mg/ml)

(주)이츠바이오



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