

LaboPass™ & RealPass™

For Molecular Biology Solutions



COSMO GENETECH

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LaboPass™ Plasmid DNA Purification Mini Kit

LaboPass™ Plasmid DNA Purification Mini Kit is designed for the rapid isolation of plasmid DNA and provides a fast and convenient tool for efficient purification of low or high copy plasmid DNA in a comfortable spin format or on a vacuum manifold. This plasmid mini purification kit is highly suitable for routine molecular biology applications.

High yield and superior purity

LaboPass™ Plasmid DNA Purification Mini Kit provides a rapid method for purification of up to 30 µg of plasmid DNA from 1 to 5 ml of bacteria culture. The purified plasmid DNA is ready to use in various molecular biology applications such as transfection, in vitro expression, enzyme digestion, PCR amplification, and DNA sequencing.

Fast and easy-to-use system

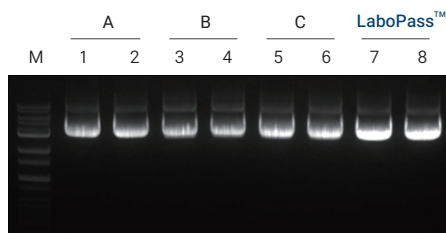
LaboPass™ Plasmid DNA Purification Mini Kit provides a fast and simple plasmid purification method for routine molecular biology applications. This kit does not require DNA phenol extraction or alcohol precipitation, and the entire procedure can be completed within 20 minutes.



Cat.No	Size
CMP0111	50 prep
CMP0112	200 prep
CMP0115	1,000 prep

High Yield

Compared with other companies' kits, LaboPass™ Plasmid DNA Purification Mini Kit produces higher DNA yield and purity. Samples were analyzed on 1% agarose gel in TAE buffer.

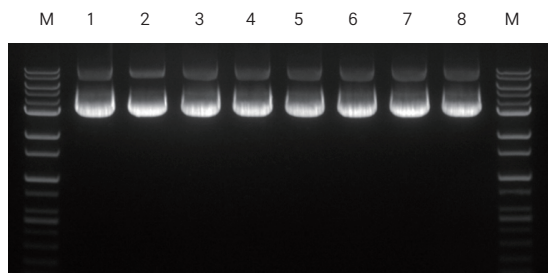


Lane M : 1kb Labo DNA ladder
Plasmid DNA : pcDNA3.1
E. coli strain : DH5α

Supplier	DNA Concentration (ng/μl)	
Company A	148.0	147.3
Company B	136.7	139.6
Company C	150.4	163.8
LaboPass™	292.6	330.2

Consistent performance

LaboPass™ Plasmid DNA Purification Mini Kit provides confidence in results. Especially, the lysis indicator dye in the kit helps to confirm cell lysis every time. Plasmid DNAs were prepared from independent culture batches using LaboPass™ Plasmid DNA Purification Mini Kit. Each lane represents the purified plasmid DNA. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1kb Labo DNA ladder

Concentration (ng/μl) of purified plasmid DNA							
1	2	3	4	5	6	7	8
385.5	384.8	341.4	369.7	352.9	352.1	346.2	346.7

Superior Purity

Plasmid DNA purified by LaboPass™ Plasmid DNA Purification Mini Kit is ready to use for various molecular biology applications.

• Restriction enzyme digestion

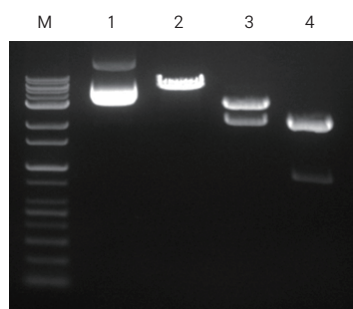
The purified plasmid DNA by LaboPass™ Plasmid DNA Purification Mini Kit was digested with several kinds of restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

• Sequencing analysis

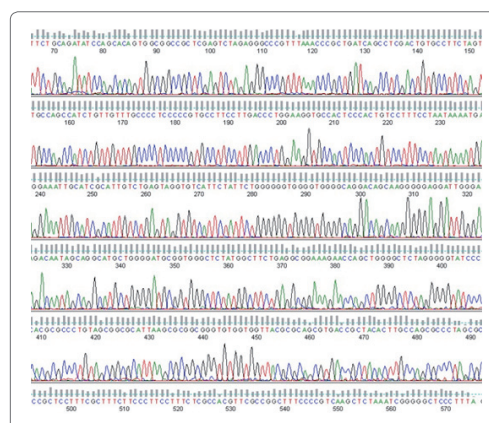
Automated DNA sequencing was performed on plasmid DNA purified with LaboPass™ Plasmid DNA Purification Mini Kit.

Sequencer Name : Applied Biosystems, Automatic Sequencer ABI 3730XL

Sequencing System : ABI BigDye® Terminator version 3.1



Lane M : 1kb Labo DNA ladder
Lane 1 : Purified plasmid DNA using LaboPass™ Plasmid DNA Purification Mini Kit
Lane 2 : BamHI digestion of purified plasmid DNA
Lane 3 : Double digestion of purified plasmid DNA with BamHI and Sall
Lane 4 : Double digestion of purified plasmid DNA with EcoRI and Sall



LaboPass™ Gel Extraction Kit

LaboPass™ Gel Extraction Kit is designed to recover or concentrate DNA fragments from agarose gels. This kit provides a fast and convenient tool for efficient purification of DNA fragments directly from agarose gels in a comfortable spin filter format or on a vacuum manifold. The purification procedure removes agarose, ethidium bromide, and other impurities in DNA sample.

High Efficiency

LaboPass™ Gel Extraction Kit provides a rapid and efficient method for isolation of DNA fragments from 100 bp up to 10 kb.

Fast and easy-to-use system

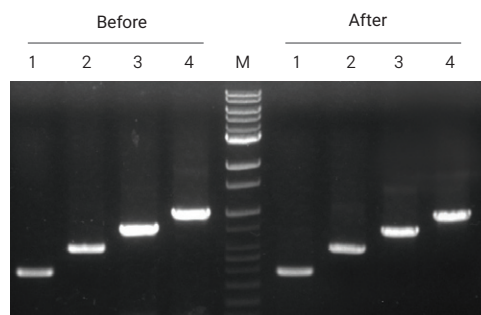
LaboPass™ Gel Extraction Kit provides a fast and simple purification method of DNA fragment for routine molecular biology applications. This kit does not require DNA phenol extraction or alcohol precipitation, and the entire procedure can be completed within 15 minutes.



Cat.No	Size
CMG0111	50 prep
CMG0112	200 prep
CMG0115	1,000 prep

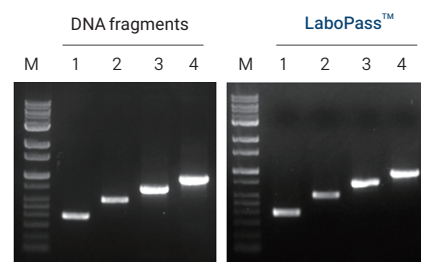
High Yield

DNA fragments before and after purification with LaboPass™ Gel Extraction Kit were compared. Samples were analyzed on 1% agarose gel in TAE buffer.

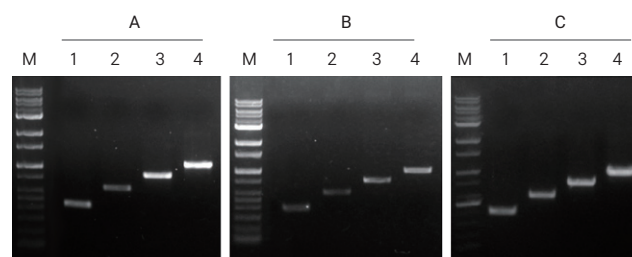


Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment
Lane 2 : 600 bp DNA fragment
Lane 3 : 800 bp DNA fragment
Lane 4 : 1 kb DNA fragment

Compared with other companies' kits, LaboPass™ Gel Extraction Kit produced higher recovery yield for various DNA fragment size. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment
Lane 2 : 600 bp DNA fragment
Lane 3 : 800 bp DNA fragment
Lane 4 : 1 kb DNA fragment



Supplier	DNA concentration (ng/μl)			
	400 bp	600 bp	800 bp	1 kb
Company A	15.6	13.4	18.9	21.2
Company B	13.2	12.6	18.2	20.4
Company C	16.3	14.2	21.2	23.7
LaboPass™	32.1	24.2	38.4	45.9

Superior Purity

DNA fragments purified with LaboPass™ Gel Extraction Kit are ready to use for various molecular biology applications.

Restriction enzyme digestion

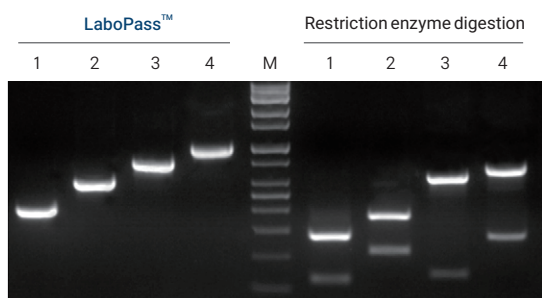
DNA fragments purified with LaboPass™ Gel Extraction Kit were digested with several kinds of restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

Sequencing analysis

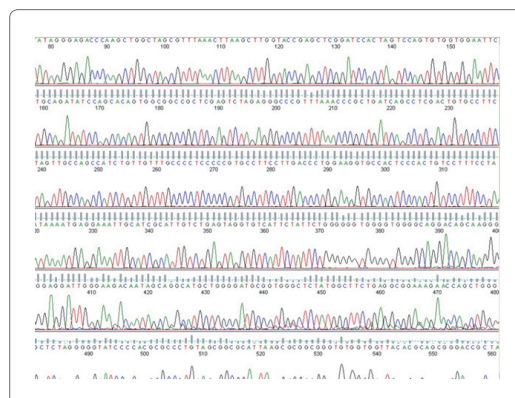
Automated DNA sequencing analysis was performed from purified DNA fragment (800 bp) using LaboPass™ Gel Extraction Kit.

Sequencer Name : Applied Biosystems, Automatic Sequencer ABI 3730XL

Sequencing System : ABI BigDye® Terminator version 3.1



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment, digested with Sall
Lane 2 : 600 bp DNA fragment, digested with NdeI
Lane 3 : 800 bp DNA fragment, digested with HindIII
Lane 4 : 1 kb DNA fragment, digested with HindIII



LaboPass™ PCR Purification Kit

LaboPass™ PCR Purification Kit is designed to recover or concentrate DNA fragments from PCR or other enzyme reactions. This kit provides a fast and convenient tool for efficient purification of DNA fragments from various enzyme reactions.

High Efficiency

LaboPass™ PCR Purification Kit provides a rapid and efficient method for purification of DNA fragments from 100 bp up to 20 kb.

Fast and easy-to-use system

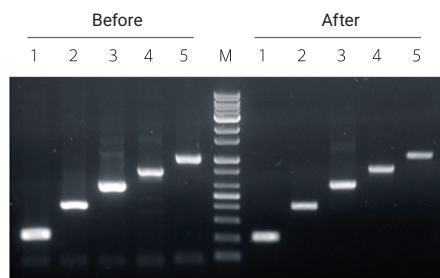
LaboPass™ PCR Purification Kit provides a fast and simple purification method of DNA fragment for routine molecular biology applications. This kit does not require DNA phenol extraction or alcohol precipitation and the entire procedure can be completed within 5 minutes.



Cat.No	Size
CMR0111	50 prep
CMR0112	200 prep
CMR0115	1,000 prep

High Recovery Yield

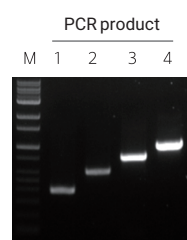
DNA fragments before and after purification with LaboPass™ PCR Purification Kit were compared. Samples were analyzed on 1% agarose gel in TAE buffer.



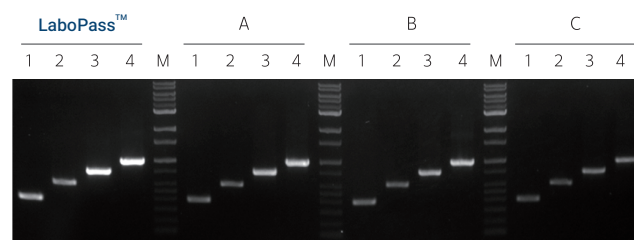
Lane M : 1 kb Labo DNA ladder
Lane 1 : PCR product (200 bp)
Lane 2 : PCR product (400 bp)
Lane 3 : PCR product (600 bp)
Lane 4 : PCR product (800 bp)
Lane 5 : PCR product (1 kb)

DNA Fragment Size	Recovery Rate (%)
200 bp	82
400 bp	82
600 bp	85
800 bp	89
1 kb	89
3 kb	85
5 kb	75
10 kb	60
20 kb	45

Compared with other companies' kits, LaboPass™ PCR Purification Kit showed high recovery yield for various PCR product size. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment
Lane 2 : 600 bp DNA fragment
Lane 3 : 800 bp DNA fragment
Lane 4 : 1 kb DNA fragment



Supplier	DNA concentration (ng/μl)			
	400 bp	600 bp	800 bp	1 kb
Company A	37.6	28.4	56.5	68.6
Company B	29.2	23.8	39.4	49.7
Company C	25.2	21.2	33.0	37.5
LaboPass™	46.6	31.9	63.4	70.6

Superior Purity

DNA fragments purified with LaboPass™ PCR Purification Kit is ready to use for various molecular biology applications.

Restriction enzyme digestion

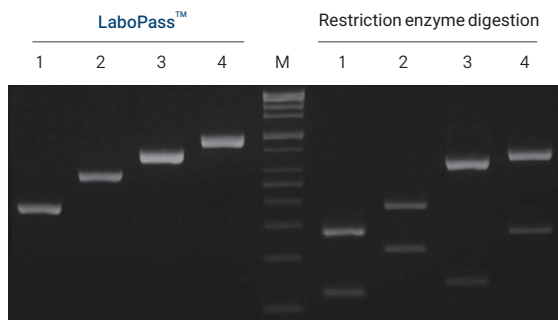
DNA fragments purified with LaboPass™ PCR Purification Kit were digested with several kinds of restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

Sequencing analysis

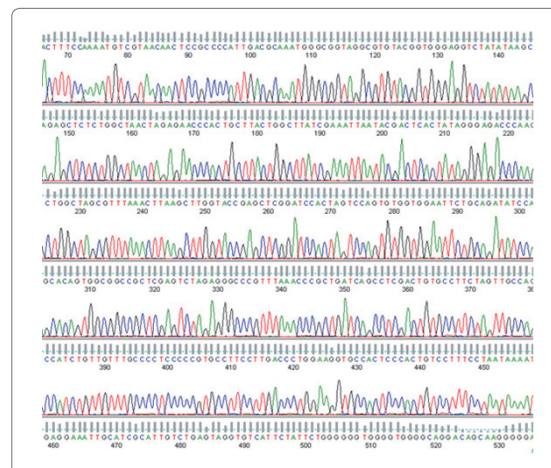
Automated DNA sequencing analysis was performed from purified PCR product (1 kb) using LaboPass™ PCR Purification Kit.

Sequencer Name : Applied Biosystems, Automatic Sequencer ABI 3730XL

Sequencing System : ABI BigDye® Terminator version 3.1



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment, digested with Sall
Lane 2 : 600 bp DNA fragment, digested with NdeI
Lane 3 : 800 bp DNA fragment, digested with HindIII
Lane 4 : 1 kb DNA fragment, digested with HindIII



LaboPass™ Gel and PCR Clean-up Kit

LaboPass™ Gel and PCR Clean-up Kit is designed to recover or concentrate DNA fragments from agarose gels or various enzyme reactions. This kit provides a fast and convenient tool for efficient purification of DNA fragments directly from agarose gels or various enzyme reactions in a comfortable spin filter format or on a vacuum manifold. The purification procedure removes agarose, ethidium bromide and other impurities from the DNA sample.

Multipurpose

This kit is a single system for purification of DNA fragment from agarose gel and various reaction mixtures such as PCR and other enzyme reactions.

High Efficiency

LaboPass™ Gel and PCR Clean-up Kit provides a rapid and efficient method for isolation of DNA fragments from 100 bp up to 20 kb.

Fast and easy-to-use system

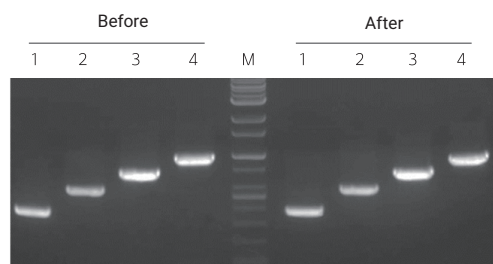
LaboPass™ Gel and PCR Clean-up Kit provides a fast and simple purification method of DNA fragment for routine molecular biology applications. This kit does not require DNA phenol extraction or alcohol precipitation.



Cat.No	Size
CMA0111	50 prep
CMA0112	200 prep
CMA0115	1,000 prep

High Recovery Yield

DNA fragments before and after purification with LaboPass™ Gel and PCR Clean-up Kit were compared. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment
Lane 2 : 600 bp DNA fragment
Lane 3 : 800 bp DNA fragment
Lane 4 : 1 kb DNA fragment

Gel Extraction		PCR Purification	
DNA Fragment Size	Recovery (%)	DNA Fragment Size	Recovery (%)
200 bp	82	200 bp	82
400 bp	82	400 bp	82
600 bp	82	600 bp	85
800 bp	83	800 bp	89
1 kb	89	1 kb	89
3 kb	80	5 kb	81
5 kb	73	10 kb	75
10 kb	55	20 kb	45

Superior Purity

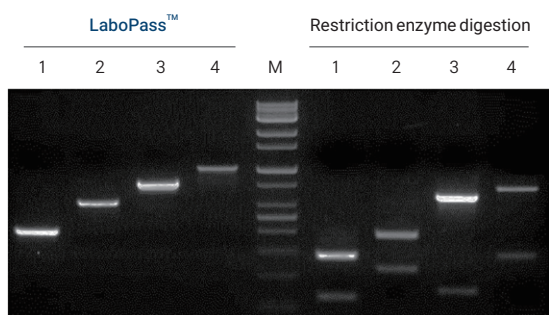
DNA fragments purified with LaboPass™ Gel and PCR Clean-up Kit is ready to use for various molecular biology applications.

Restriction enzyme digestion

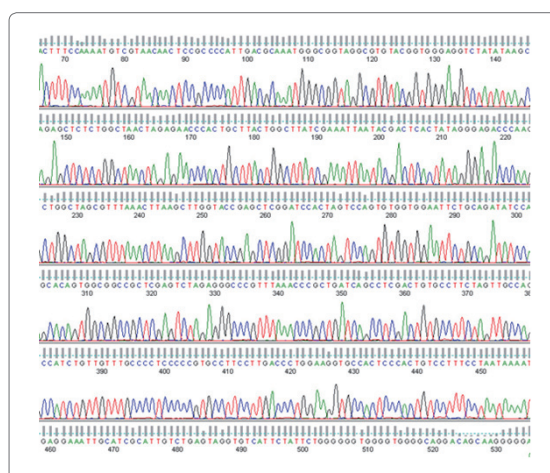
DNA fragments purified with LaboPass™ Gel and PCR Clean-up Kit were digested with several kinds of restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

Sequencing analysis

Automated DNA sequencing analysis was performed from purified PCR fragment using LaboPass™ Gel and PCR Clean-up Kit.
Sequencer Name : Applied Biosystems, Automatic Sequencer ABI 3730XL
Sequencing System : ABI BigDye® Terminator version 3.1



Lane M : 1 kb Labo DNA ladder
Lane 1 : 400 bp DNA fragment, digested with Sall
Lane 2 : 600 bp DNA fragment, digested with NdeI
Lane 3 : 800 bp DNA fragment, digested with HindIII
Lane 4 : 1 kb DNA fragment, digested with HindIII



LaboPass™ Tissue Genomic DNA Isolation Mini Kit

LaboPass™ Tissue Genomic DNA Isolation Mini Kit is optimized for the isolation of genomic DNA from various tissue types (e.g. spleen, liver, heart, brain, tail, or insects) or cells and provides a fast and convenient tool for efficient purification of genomic DNA in a comfortable spin format or on a vacuum manifold. This kit provides reproducible yields of highly purified genomic DNA and allows for the use of the purified genomic DNA in diverse applications.

High yield and purity

Genomic DNA can be prepared from 20 mg of tissue or 5×10^6 HEK293 cells using LaboPass™ Tissue Genomic DNA Isolation Mini Kit. The obtained genomic DNA is ready to use in various applications such as PCR, real-time PCR, SNP detection, Southern blotting, sequencing, and cloning.

Fast and easy-to-use system

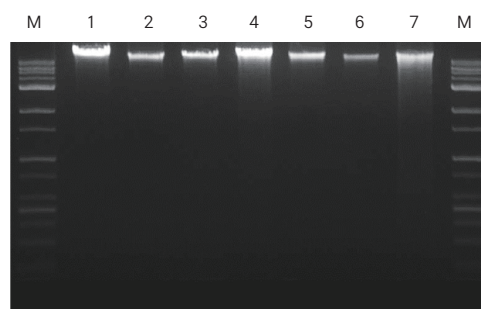
After lysis step, genomic DNA can be obtained within 10 minutes.



Cat.No	Size
CME0111	50 prep
CME0112	200 prep
CME0115	1,000 prep

High Yield

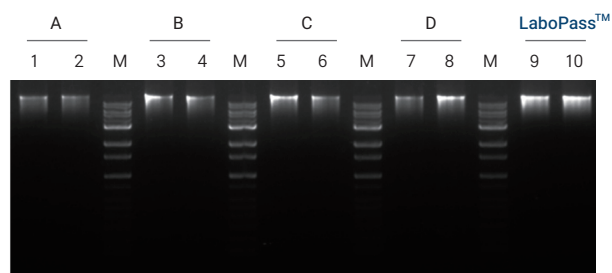
Genomic DNA was purified from various mouse tissues (20 mg each) using the LaboPass™ Tissue Genomic DNA Isolation Mini Kit. The purified genomic DNA was analyzed on 1 % agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1 : Mouse Lung
Lane 2 : Mouse Liver
Lane 3 : Mouse Kidney
Lane 4 : Mouse Spleen
Lane 5 : Mouse Brain
Lane 6 : Mouse Heart
Lane 7 : Mouse Tail

Samples	Amounts	Yield	Purity
Lung (Mouse)	20 mg	10 ~ 20 µg	1.8 ~ 1.9
Liver (Mouse)	20 mg	20 ~ 40 µg	1.8 ~ 1.9
Kidney (Mouse)	20 mg	30 ~ 40 µg	1.8 ~ 1.9
Spleen (Mouse)	20 mg	20 ~ 30 µg	1.8 ~ 1.9
Brain (Mouse)	20 mg	15 ~ 20 µg	1.8 ~ 1.9
Heart (Mouse)	20 mg	15 ~ 20 µg	1.8 ~ 1.9
Tail (Mouse)	20 mg	10 ~ 20 µg	1.8 ~ 1.9
QBI Cell (Human)	5 X 10 ⁶ cells	15 ~ 20 µg	1.8 ~ 1.9

Compared with other companies' kits, LaboPass™ Tissue Genomic DNA Isolation Mini Kit showed higher for genomic DNA yields. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder

Supplier	Mouse Liver (20mg)	
	DNA concentration (ng/µl)	
Company A	15.2	14.9
Company B	21.8	17.1
Company C	21.1	16.3
Company D	15.8	27.8
LaboPass™	30.1	29.4

Superior Purity

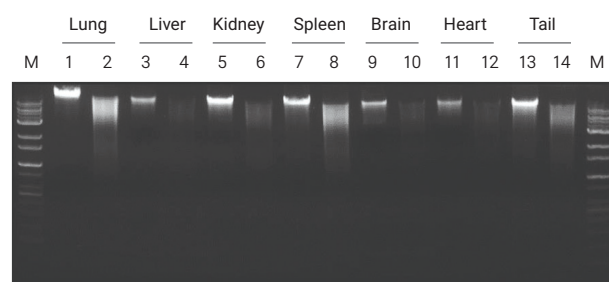
Genomic DNA purified by LaboPass™ Tissue Genomic DNA Isolation Mini Kit is ready to use for various molecular biology applications.

• Restriction enzyme digestion

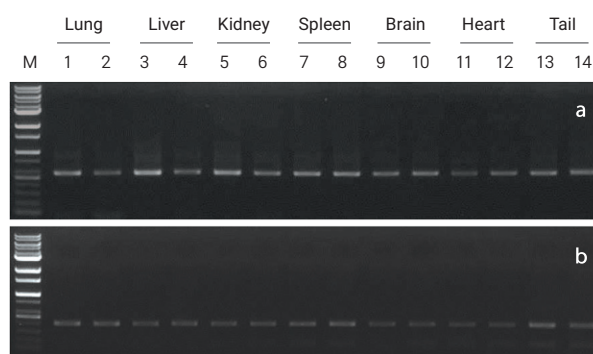
Genomic DNA purified by LaboPass™ Tissue Genomic DNA Isolation Mini Kit from various mouse tissues were digested with restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

• PCR amplification

PCR amplification was performed with purified genomic DNA using LaboPass™ Tissue Genomic DNA Isolation Mini Kit from various tissue of mouse. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1, 3, 5, 7, 9, 11, 13 : Purified genomic DNA from each mouse tissue
Lane 2, 4, 6, 8, 10, 12, 14 : Restriction enzyme digestion (HindIII) of Purified genomic DNA from each mouse tissue



a : Mouse Actin (700 bp)
b : Mouse GAPDH (400 bp)
Lane M : 1 kb Labo DNA ladder

LaboPass™ Blood Genomic DNA Isolation Mini Kit

LaboPass™ Blood Genomic DNA Isolation Mini Kit is optimized for the isolation of genomic DNA from whole blood, buffy coat, and cultured cell samples, and provides a fast and convenient tool for efficient purification of genomic DNA in a comfortable spin format or on a vacuum manifold. This kit provides reproducible yields of highly purified genomic DNA and allows for the use of the purified genomic DNA in diverse applications.

High yield and purity

Genomic DNA is yielded an average 6 µg from 200 µl of human whole blood using LaboPass™ Blood Genomic DNA Isolation Mini Kit. The obtained genomic DNA is ready to use in various applications such as PCR, real-time PCR, SNP detection, Southern blotting, sequencing, and cloning.

Fast and easy-to-use system

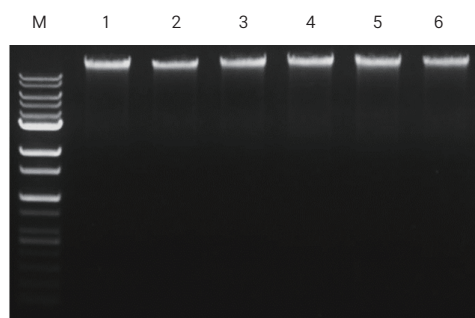
All procedure for genomic DNA purification can be completed within 20 minutes.



Cat.No	Size
CMB0111	50 prep
CMB0112	200 prep
CMB0115	1,000 prep

High Yield

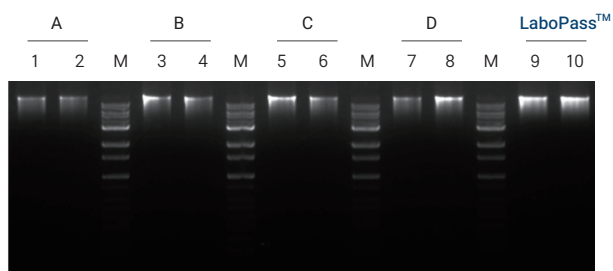
Genomic DNA was purified from whole blood samples (200 µl each) using the LaboPass™ Blood Genomic DNA Isolation Mini Kit. The obtained genomic DNA was analyzed on 1 % agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1~6 : Human blood sample

Samples	Amounts	Yield	Purity
Whole blood	200 µl	5 ~ 15 µg	1.8 ~ 1.9
Buffy coat	200 µl	20 ~ 50 µg	1.8 ~ 1.9
Lymphocytes	200 µl	20 ~ 30 µg	1.8 ~ 1.9

Compared with other companies' kits, LaboPass™ Blood Genomic DNA Isolation Kit showed high yield for genomic DNA. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder

Supplier	whole blood (200 µl)	
	DNA concentration (ng/µl)	
Company A	30.3	29.7
Company B	32.4	30.2
Company C	35.1	33.4
LaboPass™	46.2	47.0

Superior Purity

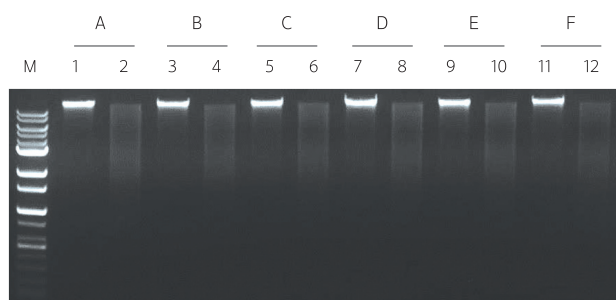
Genomic DNA purified by LaboPass™ Blood Genomic DNA Isolation Mini Kit is ready to use for various molecular biology applications.

• Restriction enzyme digestion

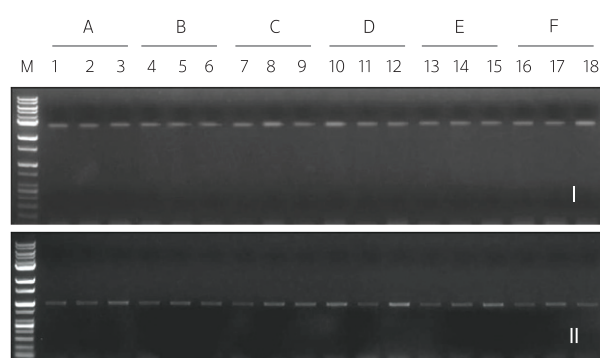
Genomic DNA purified by LaboPass™ Blood Genomic DNA Isolation Mini Kit was digested with restriction enzyme. Samples were analyzed on 1% agarose gel in TAE buffer.

• PCR amplification

PCR amplification was performed with purified genomic DNA using LaboPass™ Blood Genomic DNA Isolation Mini Kit from human whole blood. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder
Lane 1, 3, 5, 7, 9, 11 : Purified genomic DNA from human whole blood
Lane 2, 4, 6, 8, 10, 12 : Restriction enzyme digestion (HindIII) of purified genomic DNA from human whole blood



I : Human β-globulin (1 kb)
II : Human GAPDH (3 kb)
Lane M : 1 kb Labo DNA ladder

LaboPass™ Bacteria Genomic DNA Isolation Kit

LaboPass™ Bacteria Genomic DNA Isolation Mini Kit is optimized for the isolation of genomic DNA from a variety of bacteria including Gram-positive and Gram-negative bacteria and provides a fast and convenient tool for efficient purification of genomic DNA in a comfortable spin format or on a vacuum manifold. Typical DNA recovery is 1~10 µg from 1 mL of microbial culture. This kit provides reproducible yields of highly purified genomic DNA and allows for the use of purified genomic DNA in diverse applications.

High yield and purity

Genomic DNA is yielded from up to $2\sim5 \times 10^8$ Bacterial cells using LaboPass™ Bacteria Genomic DNA Isolation Mini Kit. The obtained genomic DNA is ready to use in various applications such as PCR, real-time PCR, SNP detection, Southern blotting, sequencing, and cloning.

Fast and easy-to-use system

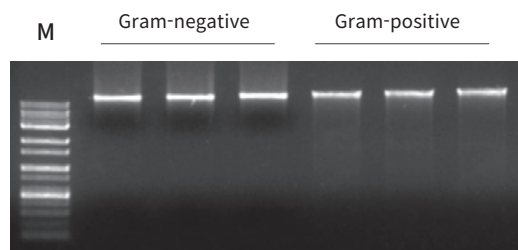
After lysis step, genomic DNA can be obtained within 10 minutes.



Cat.No	Size
CMBA0111	50 prep
CMBA0112	200 prep
CMBA0115	1,000 prep

High yield and purity

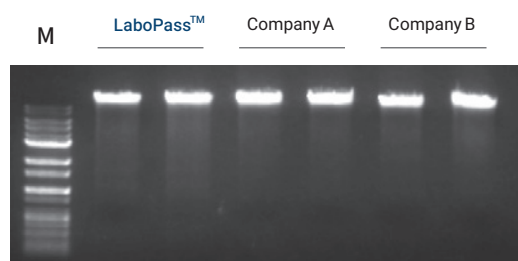
Genomic DNA was purified from gram-positive/negative bacteria using the LaboPass™ Bacteria Genomic DNA Isolation Mini Kit. The purified genomic DNA was analyzed on 1 % agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder

Samples	Bacteria		
	DNA concentration (ng/μl)		
Gram-negative	46.7	48.5	48.0
Gram-positive	42.9	44.0	44.5

Compared with other company kits, LaboPass™ Bacteria Genomic DNA Isolation Mini Kit showed high yield for genomic DNA. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : 1 kb Labo DNA ladder

Supplier	Bacteria	
	DNA concentration (ng/μl)	
Company A	33.5	30.5
Company B	32.9	35.8
LaboPass™	39.6	43.5

Superior Purity

Genomic DNA purified by LaboPass™ Bacteria Genomic DNA Isolation Mini Kit is ready to use for various molecular biology applications.

• PCR amplification

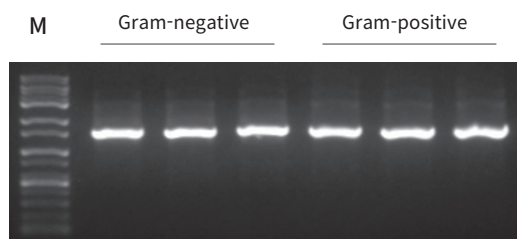
PCR amplification was performed with purified genomic DNA using LaboPass™ Bacteria Genomic DNA Isolation Mini Kit from gram-positive/negative bacteria. Samples were analyzed on 1% agarose gel in TAE buffer.

• Sequencing analysis

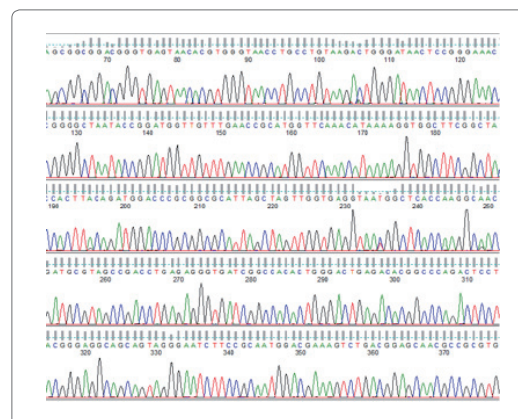
Automated DNA sequencing analysis was performed from purified DNA fragment (1.5 kb) using LaboPass™ Bacteria Genomic DNA Isolation Mini Kit.

Sequencer Name : Applied Biosystems, Automatic Sequencer ABI 3730XL

Sequencing System : ABI BigDye® Terminator version 3.1



Lane M : 1 kb Labo DNA ladder
16S rRNA gene Sequence (27F/1492R)



LaboPass™ FFPE Genomic DNA Isolation Mini Kit

LaboPass™ FFPE Genomic DNA Isolation Mini Kit is optimized for the isolation of genomic DNA from various tissue types (e.g. FFPE sections, spleen, liver, heart, brain, tail, or insects) or cells and provides a fast and convenient tool for efficient purification of genomic DNA in a comfortable spin format or on a vacuum manifold. This kit provides reproducible yields of highly purified genomic DNA and allows for the use of the purified genomic DNA in diverse applications.

Applications

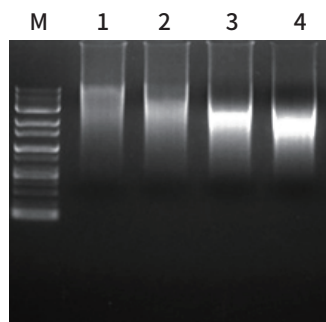
- PCR, qPCR
- Cloning
- SNP detection
- Sequencing



Cat.No	Size
CMF0111	50 prep
CMF0112	200 prep
CMF0115	1,000 prep

High Yield

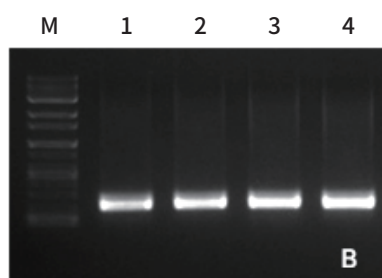
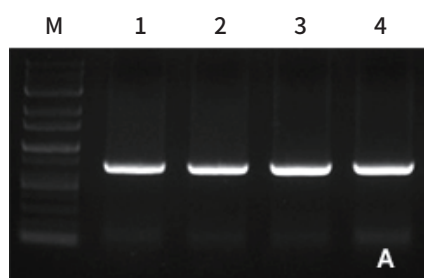
Genomic DNA was purified from FFPE tissue (5~10 section) using the LaboPass™ FFPE Genomic DNA Isolation Mini Kit. The purified genomic DNA was analyzed on 1 % agarose gel in TAE buffer.



Lane M : LaboPass™ 1 kb DNA ladder
Lane 1, 2 : Kidney 5 section
Lane 3, 4 : Kidney 10 section

Application to PCR

PCR amplification was performed with purified genomic DNA using LaboPass™ FFPE Genomic DNA Isolation Mini Kit from FFPE tissue section of mouse. Samples were analyzed on 1% agarose gel in TAE buffer.



Lane M : LaboPass™ 1 kb DNA ladder
Lane 1, 2 : Kidney 5 section
Lane 3, 4 : Kidney 10 section

A : mouse GAPDH 700 bp
B : mouse GAPDH 300 bp

LaboPass™ Genomic DNA Isolation Kit (solution type)

LaboPass™ Genomic DNA Isolation Kit provides a method for the isolation of genomic DNA from various organisms without using toxic chemicals such as phenol, chloroform.

Cat.No	Size
CMX0112	200 prep
CMX0115	1,000 prep

High yield and purity

This kit can be used to isolate genomic DNA from animal and bacterial cells with the modification of cell lysis step and purified genomic DNA is ready to use in various applications such as PCR, restriction enzyme digestion, Southern blotting and cloning.

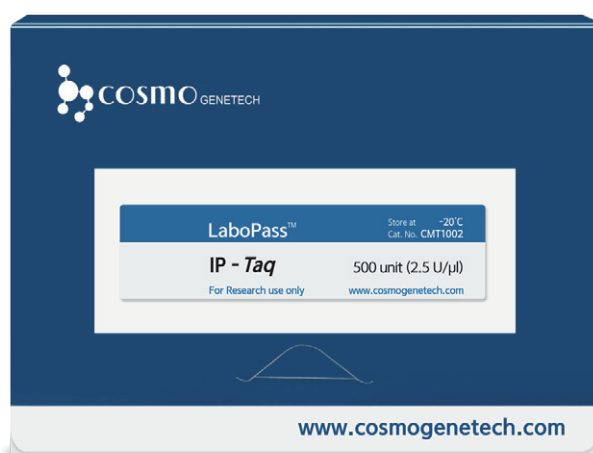
LaboPass™ IP-Taq DNA polymerase

LaboPass™ IP-Taq DNA Polymerase is a thermostable DNA polymerase cloned from *Thermus aquaticus* and is a recombinant form expressed in *E.coli*. This enzyme possesses 5' to 3' exonuclease activity, but lacks 3' to 5' exonuclease proofreading activity. The enzyme purified with high purity contains a very low level of contaminating *E.coli* DNA, which minimizes false-positive results, especially when the amplicon is a bacterial sequence (e.g. 16S rRNA).

Applications

- General PCR for detection
- Colony PCR
- Real-time PCR
- A-tailing for TA-cloning

Cat.No	Size
CMT1002	500 unit (2.5 unit/μl)



Supplied reagents

LaboPass™ IP-Taq DNA Polymerase is provided with an optimized buffer to improve PCR yield.

• 10X IP-Taq buffer I and II (with MgCl₂)

LaboPass™ IP-Taq DNA Polymerase is supplied with two types of reaction buffers with different salt formulations. Generally, Buffer I works well in most PCR reactions. The use of Buffer II can be tried if PCR products are not satisfactory (nonspecific, little or no product) using Buffer I.

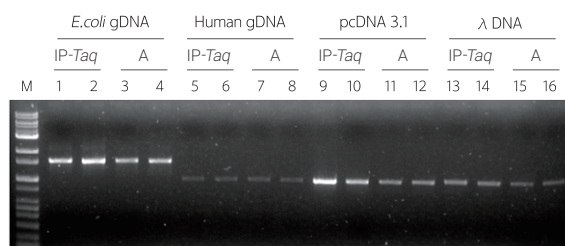
• 5X Tuning buffer

Tuning buffer can improve PCR efficiency in reactions containing problematic template DNA such as high GC content or stable secondary structures. Thus, it is advantageous to amplify complicated, long target sequences.

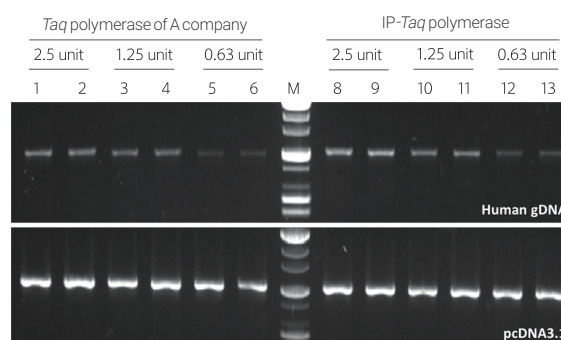
Component	Volume
IP-Taq Polymerase (2.5 unit/μl)	250 unit X 2
10X IP-Taq buffer I (with MgCl ₂)	1 ml X 2
10X IP-Taq buffer II (with MgCl ₂)	1 ml
dNTPs (2.5 mM each)	500 μl X 2
5X Tuning buffer	1 ml

High amplification efficiency

The PCR amplification efficiency was compared with other commercial *Taq* polymerase. LaboPass™ IP-*Taq* Polymerase shows comparable or superior quality.



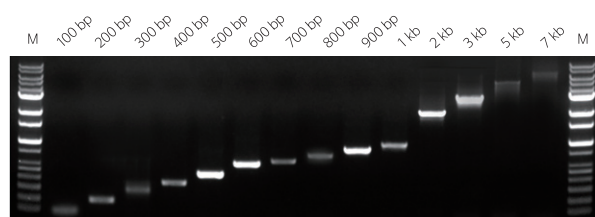
Lane M : 1 kb Labo DNA ladder



Lane M : 1 kb Labo DNA ladder

PCR performance

Various sizes of PCR products can be amplified using LaboPass™ IP-*Taq* DNA Polymerase.



Lane M : 1 kb Labo DNA ladder
DNA template : λ DNA

Standard Reaction (50 µl)	Volume
10x IP- <i>Taq</i> buffer I or II	5 µl
dNTPs (each 2.5 mM)	4 µl
5X Tuning buffer	10 µl (optional)
Forward primer	10~50 pmoles
Reverse primer	10~50 pmoles
DNA template	Variable *
IP- <i>Taq</i> Polymerase	1 µl
Distilled water	up to 50 µl

Quality control

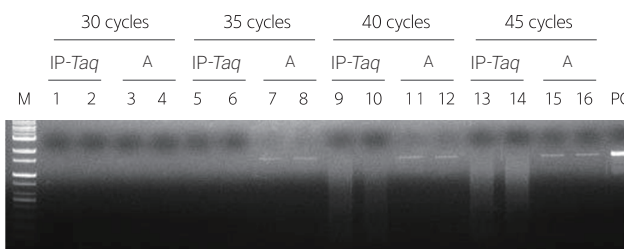
Each lot of IP-*Taq* Polymerase, 10X IP-*Taq* buffer and dNTPs are tested for contamination such as *E.coli* genomic DNA, nicking, endo-nuclease and exo-nuclease.

• Test for nuclease activity

Nicking, endonuclease, and exonuclease activities were not detected after the incubation of 0.5 µg of supercoiled pUC19, λ DNA or HindIII digested λ DNA with 10 units of this enzyme for 4 hours at 37°C or 72°C.

• Test for *E.coli* genomic DNA contamination

When compared with a competitor's DNA polymerase, LaboPass™ IP-*Taq* Polymerase was verified to have no *E.coli* genomic DNA contamination.



Lane M : 1 kb Labo DNA ladder

Lane PC : Positive control (*E.coli* gDNA, 10 ng)

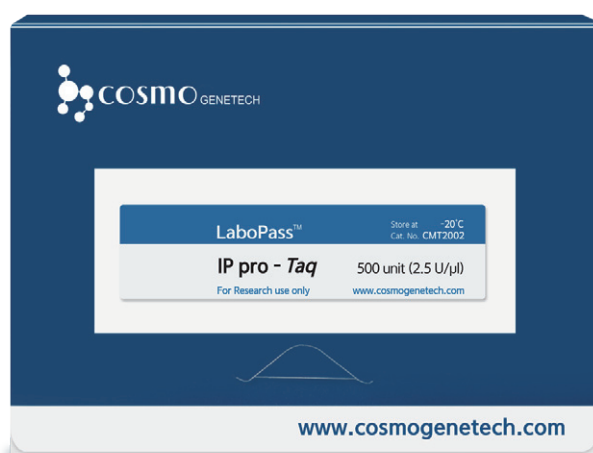
LaboPass™ IP pro-Taq DNA polymerase

LaboPass™ IP pro-Taq DNA Polymerase is a modified version of *Taq* polymerase that improves the reliability and specificity of PCR reactions. The IP pro-Taq Polymerase has proofreading activity and is more thermostable than wild-type *Taq* DNA polymerase, which allows for the amplification of long length up to 20 kb with high accuracy. The amplified products contain a mixture of blunt ends and 3' A-plus ends.

Applications

- General PCR for detection
- Long-range PCR
- Real-time PCR
- TA-cloning
- Blunt-end cloning

Cat.No	Size
CMT2002	500 unit (2.5 unit/μl)



Supplied reagents

LaboPass™ IP pro-Taq DNA Polymerase is provided with an optimized buffer to improve PCR yield.

• 10X IP pro-Taq buffer (with MgCl₂)

LaboPass™ IP pro-Taq DNA Polymerase is supplied with an optimized reaction buffer to improve PCR yield.

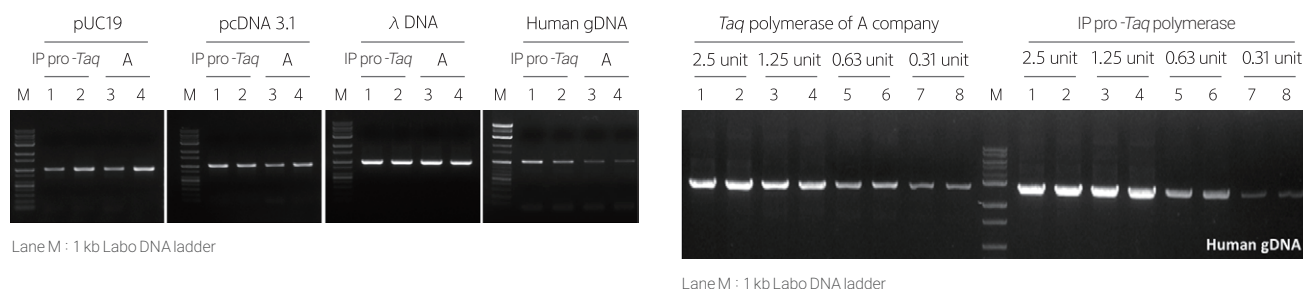
• 5X Tuning buffer

Tuning buffer can improve PCR efficiency in reactions containing problematic template DNA such as high GC content or stable secondary structures. Thus, it is advantageous to amplify complicated, long target sequences.

Component	Volume
IP pro-Taq Polymerase (2.5 unit/μl)	250 unit X 2
10X IP pro-Taq buffer (with MgCl ₂)	1 ml X 2
dNTPs (2.5 mM each)	500 μl X 2
5X Tuning buffer	1 ml

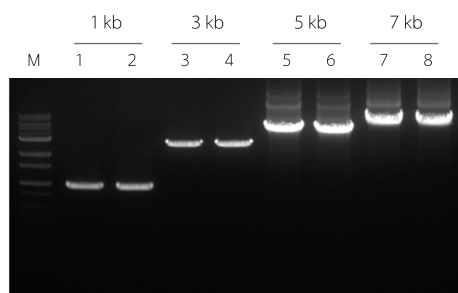
High amplification efficiency

The PCR amplification efficiency was compared with other commercial *Taq* polymerase. LaboPass™ IP pro-*Taq* Polymerase shows comparable or superior quality.



PCR performance

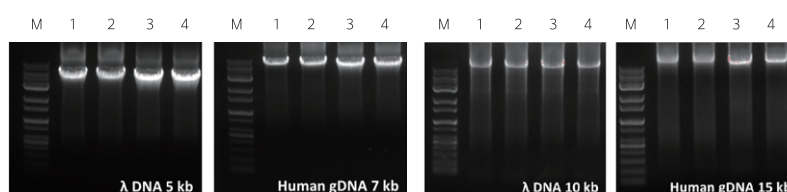
Various sizes of PCR products can be amplified using LaboPass™ IP pro-*Taq* DNA Polymerase.



Standard Reaction (50 µl)	Volume
10x IP pro- <i>Taq</i> buffer	5 µl
dNTPs (each 2.5 mM)	4 µl
5X Tuning buffer	10 µl (optional)
Forward primer	10~50 pmoles
Reverse primer	10~50 pmoles
DNA template	Variable *
IP pro- <i>Taq</i> Polymerase	1 µl
Distilled water	up to 50 µl

Long range PCR

IP pro-*Taq* Polymerase has proofreading activity and is more thermostable than wild-type *Taq* DNA polymerase. Thus, IP pro-*Taq* is ideal for long range PCR.



Quality control

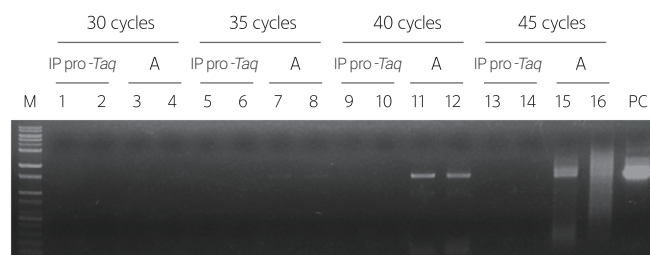
Each lot of IP pro-*Taq* Polymerase, 10X IP pro-*Taq* buffer and dNTPs are tested for contamination such as *E. coli* genomic DNA, endo-nuclease and exo-nuclease.

Test for nuclease activity

Endonuclease and exonuclease activities were not detected after incubation of 0.5 µg of supercoiled pUC19, λ DNA, or HindIII digested λ DNA with 10 units of this enzyme for 4 hours at 37°C or 72°C.

Test for *E. coli* genomic DNA contamination

When compared with a competitor's DNA polymerase, LaboPass™ IP pro-*Taq* Polymerase was verified to have no *E. coli* genomic DNA contamination.



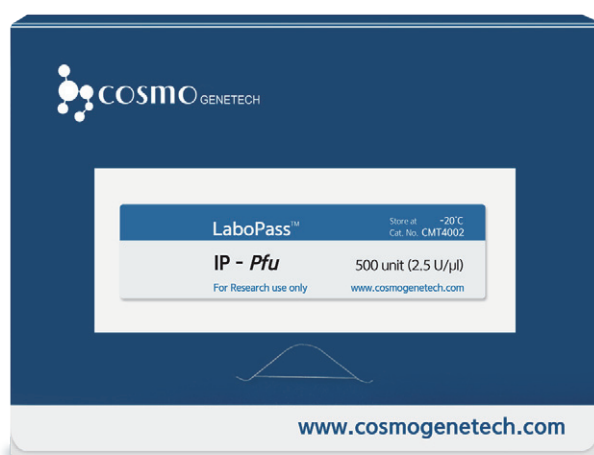
LaboPass™ IP-*Pfu* DNA polymerase

LaboPass™ IP-*Pfu* DNA Polymerase is a thermostable DNA polymerase cloned from *Pyrococcus furiosus* and is a recombinant form expressed in *E.coli*. This archaeal DNA polymerase possesses 3'→5' exonuclease (proofreading) activity, enabling high-fidelity DNA amplification, but lacks 5'→3' exonuclease activity. *Pfu* polymerase retains its polymerase activity during extended exposure at 98°C, unlike *Taq* polymerase. Therefore, this enzyme can be used to amplify difficult templates. (e.g. DNA with high GC content or stable secondary structures)

Applications

- High fidelity PCR
- Preparation of PCR products for cDNA cloning
- Site-directed mutagenesis
- Blunting of DNA ends

Cat.No	Size
CMT4002	500 unit (2.5 unit/μl)



Supplied reagents

LaboPass™ IP-*Pfu* DNA Polymerase is provided with an optimized buffer to improve PCR yield.

• 10X IP-*Pfu* buffer (with MgCl₂)

LaboPass™ IP-*Pfu* DNA Polymerase is supplied with an optimized reaction buffer to improve PCR yield.

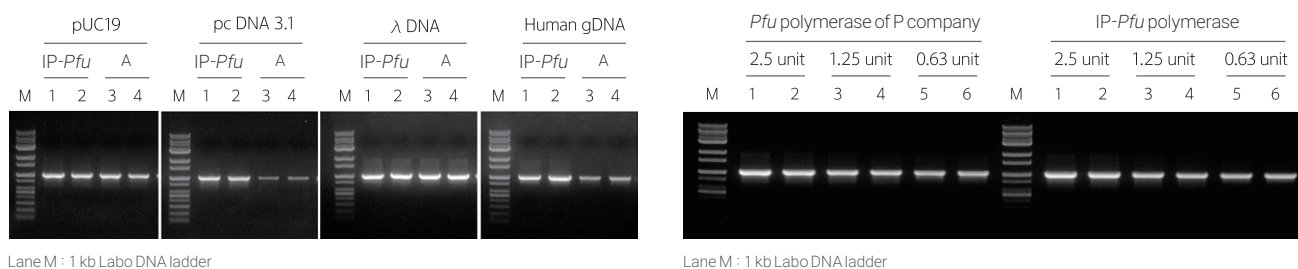
• 5X Tuning buffer

Tuning buffer can improve PCR efficiency in reactions where template DNA contains high GC content or stable secondary structures. Thus, it is advantageous to amplify complicated, long target sequences.

Component	Volume
IP- <i>Pfu</i> Polymerase (2.5 unit/μl)	250 unit X 2
10X IP- <i>Pfu</i> buffer (with MgCl ₂)	1 ml X 2
dNTPs (2.5 mM each)	500 μl X 2
5X Tuning buffer	1 ml

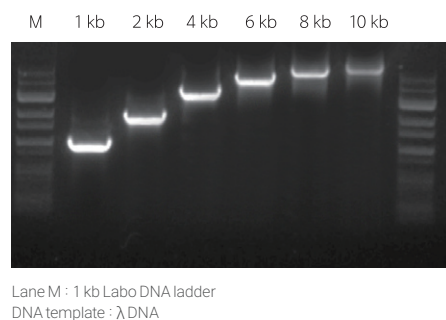
High amplification efficiency

PCR amplification efficiency was by comparing with a competitor's *Pfu* polymerase. LaboPass™ IP-*Pfu* DNA Polymerase showed comparable or superior quality.



PCR performance

Various sizes of PCR products can be amplified using LaboPass™ IP-*Pfu* DNA Polymerase.



Standard Reaction (50 µl)	Volume
10X IP- <i>Pfu</i> buffer	5 µl
dNTPs (each 2.5 mM)	4 µl
5X Tuning buffer	10 µl (optional)
Forward primer	10~50 pmoles
Reverse primer	10~50 pmoles
DNA template	Variable *
IP- <i>Pfu</i> Polymerase	1 µl
Distilled water	up to 50 µl

Quality control

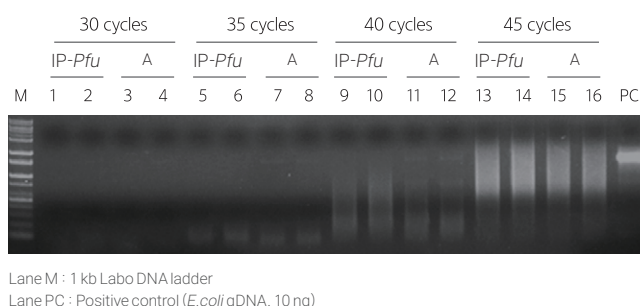
LaboPass™ IP-*Pfu* DNA Polymerase is represented by a very low error rate, determined based on β-galactosidase PCR mutation assay. Each lot of IP-*Pfu* polymerase, 10X *Pfu* buffer, and dNTPs are tested for contamination such as *E.coli* genomic DNA, nicking, endo-nuclease, and exo-nuclease.

Test for nuclease activity

Nicking, endonuclease and exonuclease activity were not detected after incubation of 0.5 µg of supercoiled pUC19, λDNA, or HindIII-digested λ DNA with 10 units of the enzyme for 4 hours at 37°C or 72°C.

Test for *E.coli* genomic DNA contamination

When compared with a competitor's DNA polymerase, LaboPass™ IP-*Pfu* Polymerase was verified to have no *E.coli* genomic DNA contamination.



LaboPass™ IP-Taq PCR Mastermix

LaboPass™ IP-Taq PCR Mastermix is a 2X concentrated, ready-to-use reaction mixture containing an optimized amount of IP-Taq Polymerase, dNTPs, reaction buffer, loading dye and stabilizers. This mixture is designed for ease of use, greater reproducibility and time savings. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT7006 (200 µl X 5, 100 reactions)
Components	IP-Taq Polymerase, dNTPs, reaction buffer, loading dye, and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 ~ 100 µl (PCR Mastermix is 2X concentrated)
Storage	-20°C

LaboPass™ IP-Taq PCR Premix

LaboPass™ IP-Taq PCR Premix is an optimized 2X PCR Mastermix containing IP-Taq Polymerase, dNTPs, MgCl₂, reaction buffer, loading dye and stabilizers that is aliquoted into the thin-wall 8-strip PCR tubes. This premix formulation simplifies PCR setup. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT6004 (96 tube, 20 µl reaction)
Components	IP-Taq Polymerase, dNTPs, reaction buffer, loading dye, and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 µl (2X PCR Mastermix is aliquoted (10 µl each) into the PCR tube)
Storage	-20°C

LaboPass™ IP pro-Taq PCR Mastermix

LaboPass™ IP pro-Taq PCR Mastermix is a 2X concentrated, ready-to-use reaction mixture containing an optimized amount of IP pro-Taq Polymerase, dNTPs, reaction buffer, loading dye and stabilizers. This mixture is designed for ease of use, greater reproducibility and time savings. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT7007 (200 µl X 5, 100 reactions)
Components	IP pro-Taq Polymerase, dNTPs, reaction buffer, loading dye and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 ~ 100 µl (PCR Mastermix is 2X concentrated)
Storage	-20°C

LaboPass™ IP pro-Taq PCR Premix

LaboPass™ IP pro-Taq PCR Premix is an optimized 2X PCR Mastermix containing IP pro-Taq Polymerase, dNTPs, MgCl₂, reaction buffer, loading dye and stabilizers that is aliquoted into the thin-wall 8-strip PCR tubes. This premix formulation simplifies PCR setup. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT6005 (96 tube, 20 µl reaction)
Components	IP pro-Taq Polymerase, dNTPs, reaction buffer, loading dye and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 µl (2X PCR Mastermix is aliquoted (10 µl each) into the PCR tube)
Storage	-20°C

LaboPass™ IP-Pfu PCR Mastermix

LaboPass™ IP-Pfu PCR Mastermix is a 2X concentrated, ready-to-use reaction mixture containing an optimized amount of IP-Pfu DNA Polymerase, dNTPs, reaction buffer, loading dye and stabilizers. This mixture is designed for ease of use, greater reproducibility and time savings. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT7008 (200 µl X 5, 100 reactions)
Components	IP-Pfu Polymerase, dNTPs, reaction buffer, loading dye, and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 ~ 100 µl (PCR Mastermix is 2X concentrated)
Storage	-20°C

LaboPass™ IP-Pfu PCR Premix

LaboPass™ IP-Pfu PCR Premix is an optimized 2X PCR Mastermix containing IP-Pfu DNA Polymerase, dNTPs, MgCl₂, reaction buffer, loading dye and stabilizers that is aliquoted into the thin-wall 8-strip PCR tubes. This premix formulation simplifies PCR setup. The user simply adds template DNA, primers, and distilled water (DW) to start the reaction.

Specifications

Cat.No	CMT6006 (96 tube, 20 µl reaction)
Components	IP-Pfu Polymerase, dNTPs, reaction buffer, loading dye, and stabilizers
Type	Ready-to-use (Only DNA template and primers are needed)
Reaction volume	20 µl (2X PCR Mastermix is aliquoted (10 µl each) into the PCR tube)
Storage	-20°C

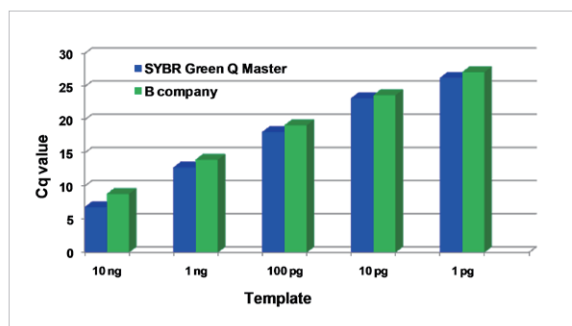
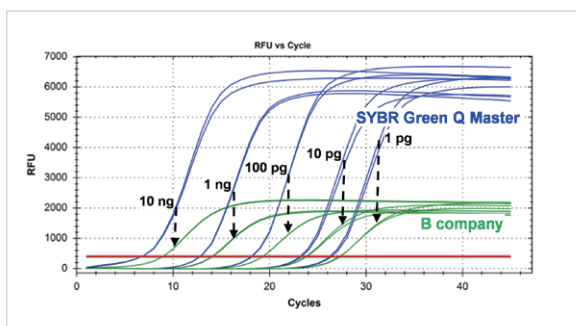
LaboPass™ SYBR Green Q Master

LaboPass™ SYBR Green Q Master is a specifically formulated reaction mixture for quantitative real-time PCR (qPCR) with a fluorescent DNA-binding dye, SYBR Green I. Compared to probe-based systems, the SYBR Green I-based qPCR system is a cost-effective and simple method because it does not require any fluorescent dye, labeled probe, or effort for probe design.

Cat.No		Size
No ROX	CMQS200	1 ml X 2, 200 reaction
	CMQS500	1 ml X 5, 500 reaction
	CMQS1000	1 ml X 10, 1000 reaction
ROX	CMQSR200	1 ml X 2, 200 reaction
	CMQSR500	1 ml X 5, 500 reaction
	CMQSR1000	1 ml X 10, 1000 reaction

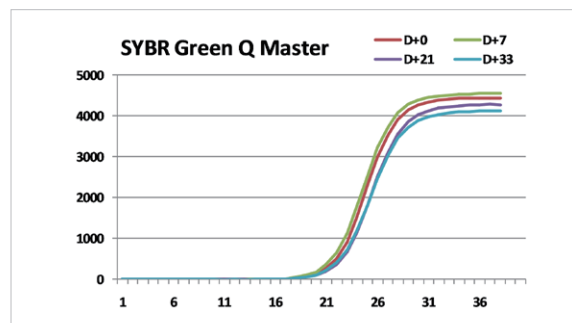
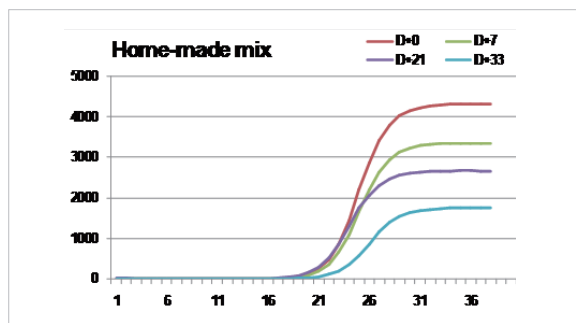
High sensitivity & strong fluorescence signal

LaboPass™ SYBR Green Q Master contains a modified *Taq* polymerase and a specific PCR enhancer to achieve high sensitivity and specificity in PCR performance. Compared to products of well-known company, SYBR Green Q Master is far superior in amplification efficiency and signal intensity.



Stable fluorescence intensity

SYBR Green I can be easily decomposed in an aqueous solution, resulting in a significant reduction of the fluorescent signal. LaboPass™ SYBR Green Q Master contains a specific stabilizer to prevent the decomposition of SYBR Green I, ensuring the stable retention of fluorescence intensity during long-term storage.



Convenient, easy-to-use reaction mixture

LaboPass™ SYBR Green Q Master is a 2X concentrated, ready-to-use reaction mixture containing all the necessary components, except primers, template DNA, and passive reference dye required by some real-time PCR instruments.

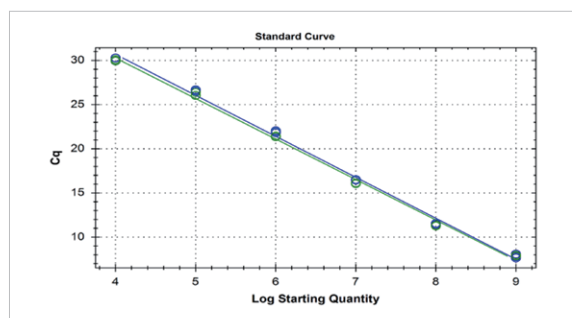
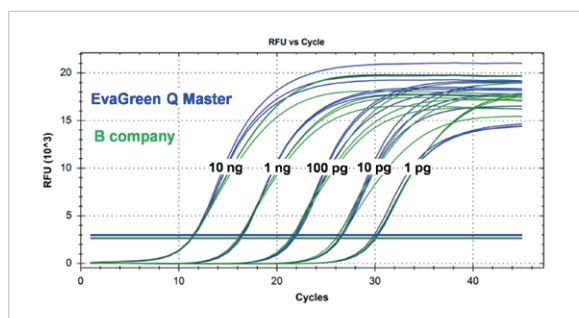
LaboPass™ EvaGreen Q Master

LaboPass™ EvaGreen Q Master is a specifically formulated reaction mixture for quantitative real-time PCR (qPCR) with a fluorescent DNA-binding dye, EvaGreen. EvaGreen dye has excitation and emission spectra very close to SYBR Green I which is used widely in qPCR. Unlike SYBR Green I, EvaGreen dye is extremely stable both thermally and hydrolytically. Especially, EvaGreen dye exhibits very low PCR inhibition permitting use of a saturation dye concentration for maximal signal and high-resolution melting (HRM) analysis.

Cat.No		Size
No ROX	CMQE200	1 ml X 2, 200 reaction
	CMQE500	1 ml X 5, 500 reaction
	CMQE1000	1 ml X 10, 1000 reaction
ROX	CMQER200	1 ml X 2, 200 reaction
	CMQER500	1 ml X 5, 500 reaction
	CMQER1000	1 ml X 10, 1000 reaction

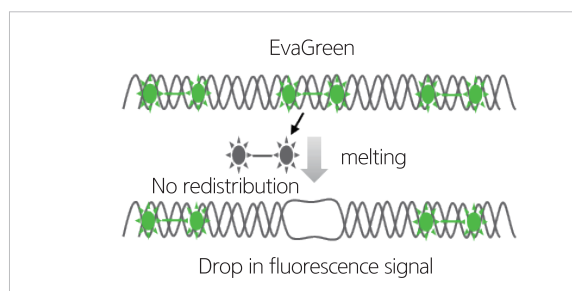
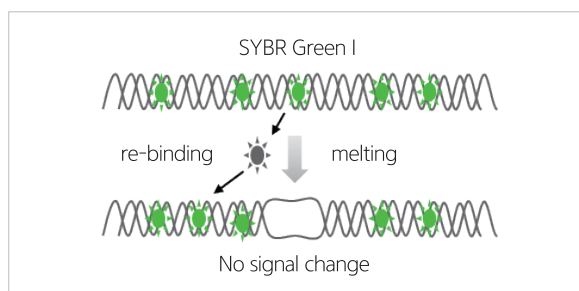
High sensitivity & strong fluorescence signal

LaboPass™ EvaGreen Q Master contains a modified *Taq* polymerase and a specific PCR enhancer to achieve high sensitivity and specificity in PCR performance. Compared with other commercial kits, EvaGreen Q Master shows comparable or superior quality in amplification efficiency and signal intensity.



High Resolution Melt (HRM) Analysis

LaboPass™ EvaGreen Q Master can be used not only for general qPCR but also for high-resolution melting analysis to detect unknown mutation, SNP, or DNA methylation. EvaGreen dye, which shows no inhibition of PCR at a near saturating concentration and binds to dsDNA via a novel "release-on-demand" mechanism, is more suitable than SYBR Green I for HRM analysis.



Convenient, easy-to-use reaction mixture

LaboPass™ EvaGreen Q Master is a 2X concentrated, ready-to-use reaction mixture containing all the necessary components, except primers, template DNA, and passive reference dye required by some real-time PCR instruments.

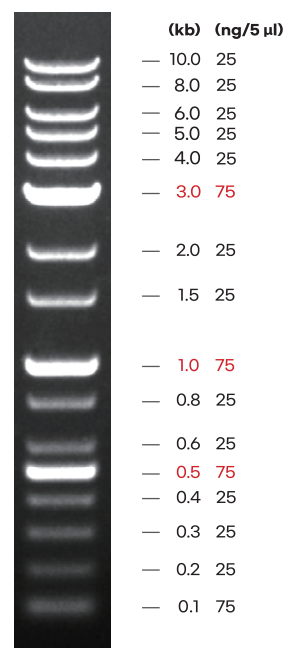
LaboPass™ 1 kb DNA Ladder II

LaboPass™ 1 kb DNA Ladder II is designed to determine the size of double-stranded DNA fragments from 100 bp to 10 kb.

The 1 kb DNA Ladder consists of 16 double-stranded molecular weight markers ranging in size from 100 bp to 10 kb. The 500 bp, 1 kb and 3 kb bands are brighter for easy identification.

Specifications

Cat.No	CMM7006 (250 µl x 2 (100 lane))
Type	Ready-to-use
Reaction volume	5 µl
Size range	100 bp - 10 kb
Number of bands	16
Storage	-20°C (Stable for at least 3 months at 4°C)



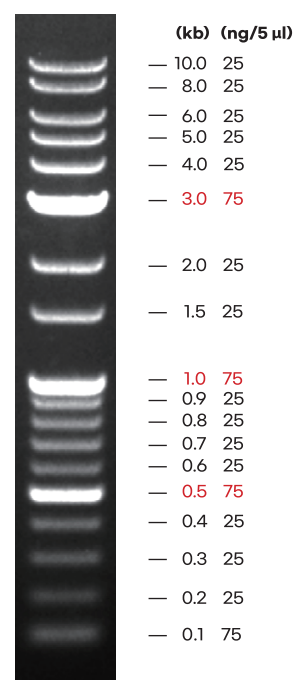
LaboPass™ 1 kb plus DNA Ladder II

LaboPass™ 1 kb plus DNA Ladder II is designed to determine the size of double-stranded DNA fragments from 100 bp to 10 kb.

The 1 kb plus DNA Ladder consists of 18 double-stranded molecular weight markers ranging in size from 100 bp to 1 kb in 100 bp increments, and additional fragments of 1.5, 2, 3, 4, 5, 6, 8 and 10 kb. The 500 bp, 1 kb and 3 kb bands are brighter for easy identification.

Specifications

Cat.No	CMM7007 (250 µl x 2 (100 lane))
Type	Ready-to-use
Reaction volume	5 µl
Size range	100 bp - 10 kb
Number of bands	18
Storage	-20°C (Stable for at least 3 months at 4°C)

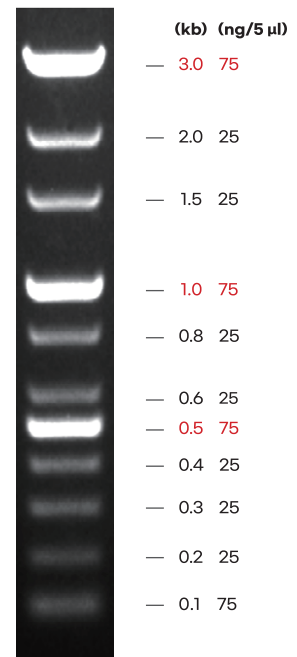


LaboPass™ 100 bp DNA Ladder II

LaboPass™ 100 bp DNA Ladder II is designed to determine the size of double-stranded DNA fragments from 100 bp to 3 kb. The 100 bp DNA Ladder consists of 11 double-stranded molecular weight markers ranging in size from 100 bp to 3 kb. The 500 bp, 1 kb and 3 kb bands are brighter for easy identification.

Specifications

Cat.No	CMM7008 (250 µl x 2 (100 lane))
Type	Ready-to-use
Reaction volume	5 µl
Size range	100 bp - 3 kb
Number of bands	11
Storage	-20°C (Stable for at least 3 months at 4°C)

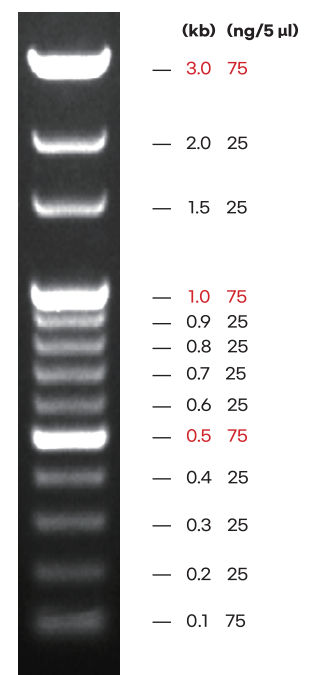


LaboPass™ 100 bp plus DNA Ladder II

LaboPass™ 100 bp plus DNA Ladder II is designed to determine the size of double-stranded DNA fragments from 100 bp to 3 kb. The 100 bp plus DNA Ladder consists of 13 double-stranded molecular weight markers ranging in size from 100 bp to 1 kb in 100 bp increments, and additional fragments of 1.5, 2 and 3 kb. The 500 bp, 1 kb and 3 kb bands are brighter for easy identification.

Specifications

Cat.No	CMM7009 (250 µl x 2 (100 lane))
Type	Ready-to-use
Reaction volume	5 µl
Size range	100 bp - 3 kb
Number of bands	13
Storage	-20°C (Stable for at least 3 months at 4°C)



LaboPass™ dNTPs

LaboPass™ dNTPs are available individually, as a set of four individual nucleotides, or as nucleotide mixtures at convenient concentrations for direct use in PCR, reverse transcription, labeling and other applications.

Product	Cat.No	Size	Conc	Purity	Remarks
dATP	NT010	1.0 ml	100 mM	> 98%	2'-Deoxyadenosine 5'-triphosphate, sodium salt (molecular biology grade)
dCTP	NT020	1.0 ml	100 mM	> 98%	2'-Deoxycytidine 5'-triphosphate, sodium salt (molecular biology grade)
dGTP	NT030	1.0 ml	100 mM	> 98%	2'-Deoxyguanosine 5'-triphosphate, sodium salt (molecular biology grade)
dTTP	NT040	1.0 ml	100 mM	> 98%	2'-Deoxythymidine 5'-triphosphate, sodium salt (molecular biology grade)
dUTP	NT070	1.0 ml	100 mM	> 98%	2'-Deoxyuridine 5'-triphosphate, sodium salt (molecular biology grade)
dNTP Set	NT050	0.25 ml	Each 100 mM	> 98%	Set of dATP, dCTP, dGTP, and dTTP in separate tubes (molecular biology grade)
dNTP Mix	NT060	1.0 ml	Each 2.5 mM	> 98%	Mixture of dATP, dCTP, dGTP, and dTTP (molecular biology grade)

Applications

- PCR
- Long PCR
- Real-time PCR
- High-fidelity PCR
- RT-PCR
- cDNA synthesis
- Primer extension
- DNA sequencing and DNA labeling.

Storage Conditions

Store at -20°C. Avoid exposure to frequent temperature changes.

LaboPass™ M-MuLV Reverse Transcriptase

LaboPass™ M-MuLV Reverse Transcriptase is a recombinant form of the reverse transcriptase from the Moloney Murine Leukemia Virus (M-MuLV), which possesses enhanced cDNA synthesis activity and reduced RNase H activity. Reduction of RNase H activity enables a higher yield of full-length cDNA transcripts and increased thermostability over the wild-type enzyme. The enzyme can synthesize cDNA using either RNA or single-stranded DNA as a template. It is expressed in *E. coli* and purified to high purity.

Cat.No	Size
CMRT010	10,000 unit (200 unit/μl)
CMRT050	50,000 unit (200 unit/μl)

Applications

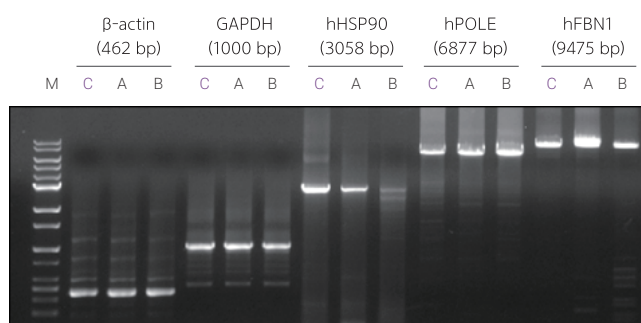
- First strand cDNA synthesis
- RT-PCR or qRT-PCR
- cDNA labeling for microarray or other applications

Supplied reagents

- M-MuLV Reverse Transcriptase : 200 unit/μl
- 5X RT reaction buffer (containing Mg²⁺)
- dNTPs : Each 10 mM

High efficiency of cDNA synthesis

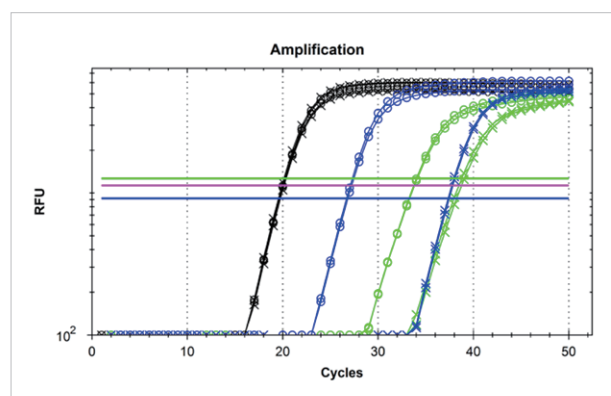
Efficiency of first-strand cDNA synthesis was compared with that of another commercial enzyme. LaboPass™ M-MuLV Reverse Transcriptase showed comparable or superior quality.



Lane M : 1 kb Labo DNA ladder
Lane C : LaboPass™ M-MuLV Reverse Transcriptase
 Lane A : A company Reverse Transcriptase
 Lane B : B company Reverse Transcriptase

Reliable gene expression analysis

LaboPass™ M-MuLV Reverse Transcriptase produces reliable result in quantitative RT-PCR for gene expression analysis.



X : Untreated HEK293T
 O : Interferon treated HEK293T

Actin, OAS1, RIG-I

LaboPass™ RNase Inhibitor

LaboPass™ RNase Inhibitor is a 50 kDa recombinant protein of murine origin which is purified from a recombinant *E.coli* strain expressing a cloned murine gene. The inhibitor specifically inhibits RNase A, B and C by binding at a 1:1 ratio with high affinity, but does not inhibit RNase 1, RNase T1, S1 nuclease or RNase H. Additionally, it does not interfere with the activity of *Taq* polymerase, SP6, T7 and T3 RNA Polymerases, AMV or M-MuLV Reverse Transcriptase. Murine RNase inhibitor which lacks a pair of cysteines identified in the human/porcine inhibitor is more resistant to oxidation. Therefore, it is more stable at low-reducing conditions (2-mercaptoethanol, DTT, DTE, etc.) compared to inhibitors from other sources.

Cat.No	Size
CMRN002	2,000 unit (40 unit/μl)
CMRN010	10,000 unit (40 unit/μl)

Applications

- cDNA synthesis
- RT-PCR or qRT-PCR
- *in vitro* transcription
- *in vitro* translation
- Other applications where the integrity of RNA is required

Supplied reagents

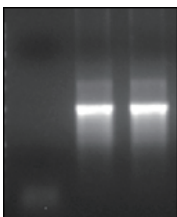
- RNase inhibitor : 40 unit/μl

Complete protection of RNA from RNase degradation

Purified RNA (*in vitro* transcripts or mammalian total RNA) was incubated with RNase A in the absence or presence of RNase inhibitor. LaboPass™ RNase Inhibitor completely protected RNA from RNase A degradation. Compared with other commercial enzymes, LaboPass™ RNase Inhibitor showed comparable or superior inhibition activity.

in vitro transcripts

No S C



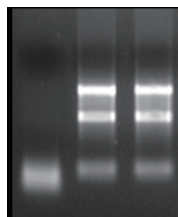
Lane No : No RNase inhibitor

Lane S : Reverse Transcriptase of S company

Lane C : LaboPass™ RNase Inhibitor

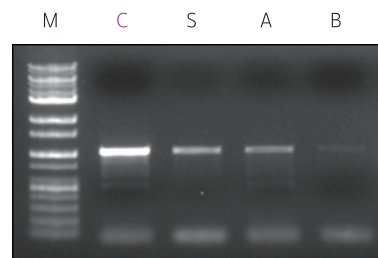
Total RNA

No S C



High yield of cDNA synthesis

The yield of cDNA synthesis was compared with other commercial RNase inhibitors in a reverse transcription reaction. LaboPass™ RNase Inhibitor produced a far superior yield in comparison.



Lane M : 1 kb Labo DNA ladder

Lane C : LaboPass™ RNase Inhibitor

Lane S : RNase inhibitor of S company

Lane A : RNase inhibitor of A company

Lane B : RNase inhibitor of B company

LaboPass™ cDNA Synthesis Kit

LaboPass™ cDNA Synthesis kit is optimized for efficient and reproducible synthesis first-strand cDNA from total RNA or poly(A) RNA. This kit provides all components necessary for cDNA synthesis including reverse transcriptase, dNTPs, reaction buffer, RNase inhibitor, primer and nuclease-free water. M-MuLV Reverse Transcriptase included in this kit is a recombinant form of the reverse transcriptase from the Moloney Murine Leukemia Virus (M-MuLV) which possesses enhanced cDNA synthesis activity and reduced RNase H activity. Reduction of RNase H activity enables higher yields of full-length cDNA transcripts and increased thermostability.

Applications

- cDNA synthesis for RT-PCR and RT-qPCR
- cDNA synthesis for gene cloning

Supplied reagents

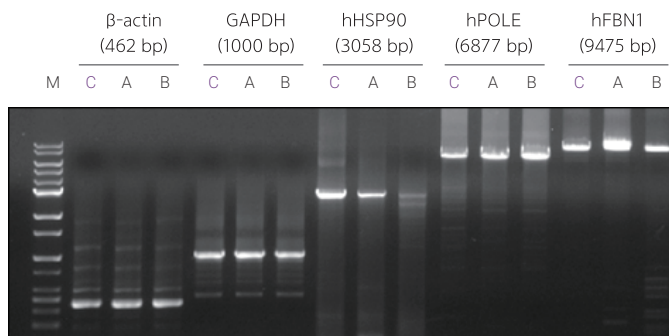
	50 rxn	100 rxn
• Reverse Transcriptase (200 U/μl)	50 μl	100 μl
• 5X RT Buffer	250 μl	500 μl
• dNTP (each 10 mM)	50 μl	100 μl
• RNase inhibitor (40 U/μl)	50 μl	100 μl
• Oligo (dT)18 (100 μM)	50 μl	100 μl
• Random hexamer (0.2 μg/μl)	50 μl	100 μl
• Nuclease-free water	1 ml	1.5 ml



Cat.No	Size
CMRTK001	50 rxn
CMRTK002	100 rxn

High yield of cDNA synthesis

Efficiency of first-strand cDNA synthesis was compared with that of another commercial enzyme. LaboPass™ M-MuLV Reverse Transcriptase showed comparable or superior quality.



Lane M : 1 kb Labo DNA ladder

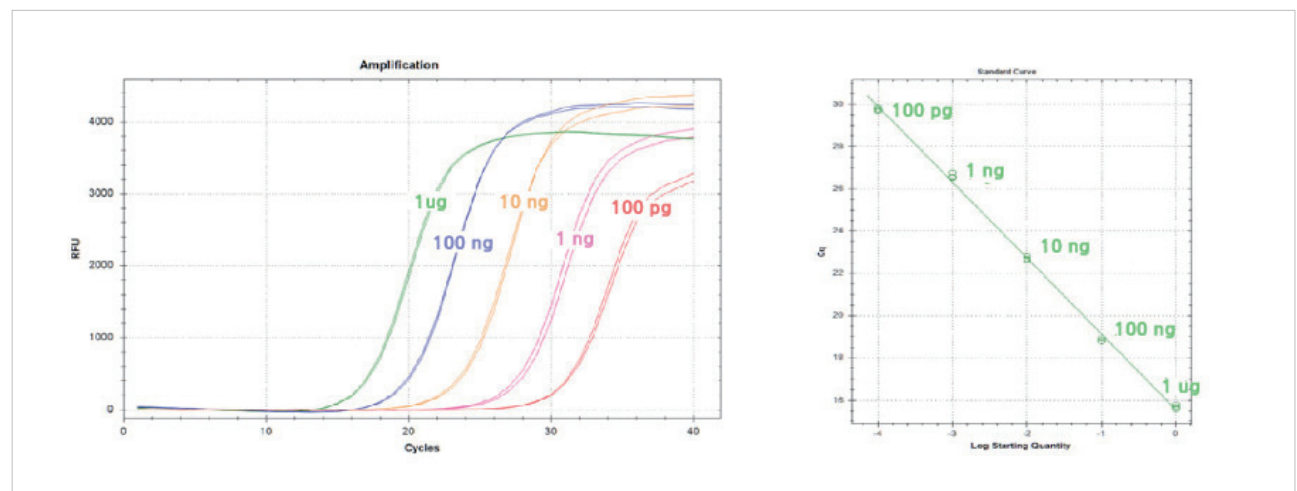
Lane C : LaboPass™ M-MuLV Reverse Transcriptase

Lane A : A company Reverse Transcriptase

Lane B : B company Reverse Transcriptase

Highly sensitivity and accuracy

First-strand cDNA was generated from 1 μ g to 100 pg of total HepG2 cell RNA with the LaboPass™ cDNA Synthesis Kit for RT-qPCR. Synthesized cDNA was used as a template in subsequent qPCR with LaboPass™ SYBR Green Q Master Mix on the Bio-Rad CFX96 Real-Time PCR System. Parallel RT reactions demonstrated sensitive and reliable cDNA synthesis over a wide dynamic range of input RNA.



LaboPass™ Total RNA Kit

LaboPass™ Total RNA Kit provides a simple and fast method for purification of total RNA from various biological samples, such as cultured cells and animal tissues. Highly pure RNA can be isolated in less than 30 minutes without any use of hazardous organic solvents and alcohol precipitation. Purified RNA can be directly used in various downstream applications without any further manipulations.

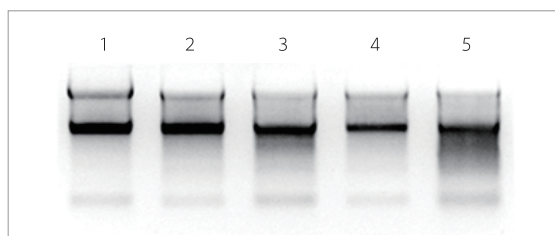
Cat.No	Size
CMRR0050	50 prep
CMRR0100	100 prep

Applications

- cDNA synthesis
- RT-PCR, RT-qPCR
- Cloning

Superior performance in total RNA extraction

Total RNA was isolated from various cells and tissues with Total RNA Kit and run on denaturing agarose gel electrophoresis.



Lane 1 : Epithelial cells
Lane 2 : mouse brain
Lane 3 : mouse kidney
Lane 4 : mouse liver
Lane 5 : mouse spleen

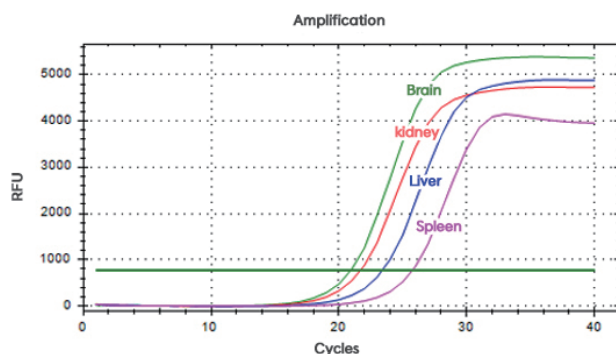
Expected yields

The table below presents typical yields of RNA (A260/280 of >1.8) from various materials.

Material	Quantity	RNA (Yield)
Epithelial cells	1 X 10 ⁶ cells	10 - 20 µg
Brain	1 mg	1 - 1.6 µg
Spleen	1 mg	2 - 3 µg
Kidney	1 mg	2 - 3 µg
Liver	1 mg	2 - 4 µg

Application to real-time quantitative RT-PCR

Total RNA extracted with Total RNA kit can be successfully used in Real-time qRT-PCR assay.



Total RNA extracted from various cultured cells and tissues with Total RNA kit was reverse-transcribed into cDNA using LaboPass™ cDNA synthesis kit (Cat.No. CMRTK001). The resulting cDNA was applied to real-time qPCR for GAPDH mRNA using LaboPass™ SYBR green Q master (Cat.No. CMQS200).

LaboPass™ Labozol Reagent

LaboPass™ Labozol Reagent is a ready-to-use reagent, designed to isolate total RNA including miRNA from cell and tissue samples of human, animal, plant, yeast and bacterial origin. Labozol Reagent shows superior performance in the extraction of total RNA with high integrity due to effective inhibition of RNase by phenol and guanidine thiocyanate, which are the major components in this reagent. The extracted RNA can be used in downstream applications such as cDNA synthesis, Northern blot, mRNA isolation, RNase protection assay and other RNA-based assay.

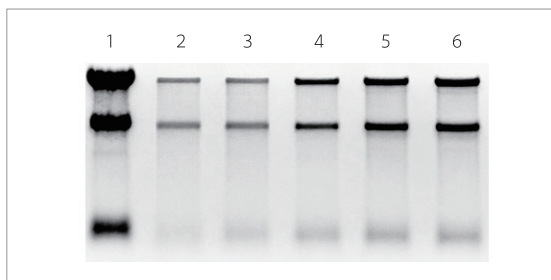
Cat.No	Size
CMRZ001	100 ml

Applications

- mRNA isolation
- cDNA synthesis for RT-PCR, RT-qPCR and gene cloning
- Northern blot and RNase protection assay
- Other RNA-based experiments

Superior performance in total RNA extraction

Total RNA was isolated from various cells and tissues with Labozol Reagent and run on denaturing agarose gel electrophoresis.



Lane 1 : HEK293T
Lane 2 : NIH3T3

Lane 3 : mouse brain
Lane 4 : mouse liver

Lane 5 : mouse kidney
Lane 6 : mouse spleen

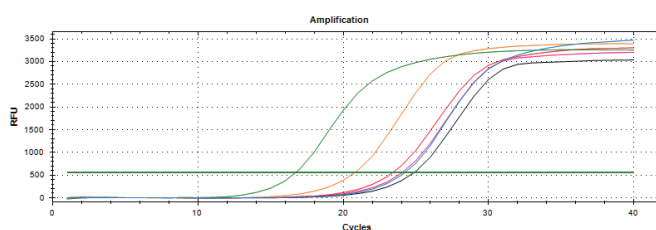
Expected yields

The table below presents typical yields of RNA (A260/280 of >1.8) from various materials.

Material	Quantity	RNA (Yield)
Epithelial cells	1 X 10 ⁶ cells	10 ~ 20 µg
Fibroblast cells	1 X 10 ⁶ cells	7 ~ 8.5 µg
Brain	1 mg	1 ~ 1.4 µg
Spleen	1 mg	3 ~ 4.5 µg
Kidney	1 mg	4 ~ 6 µg
Liver	1 mg	5 ~ 6 µg

Application to real-time quantitative RT-PCR

Total RNA extracted with Labozol Reagent can be successfully used in real-time qRT-PCR assay.



Total RNA extracted from various cultured cells and tissues with Labozol Reagent was reverse-transcribed into cDNA using LaboPass™ cDNA synthesis kit (Cat.No. CMRTK001). The resulting cDNA was applied to real-time qPCR for GAPDH mRNA using LaboPass™ SYBR green Q master (Cat.No. CMQS200).

Green : HEK293T Blue : NIH3T3 Pink : mouse brain
Red : mouse liver Orange : mouse kidney Black : mouse spleen

LaboPass™ FFPE RNA Isolation Mini Kit

LaboPass™ FFPE RNA Kit provides a simple and fast method for the purification of total RNA from various biological samples, such as FFPE tissue sections, cultured cells and animal tissues. Highly pure RNA can be isolated in 30-60 minutes without any use of hazardous organic solvents or alcohol precipitation. Purified RNA can be directly used in various downstream applications without any further manipulations.

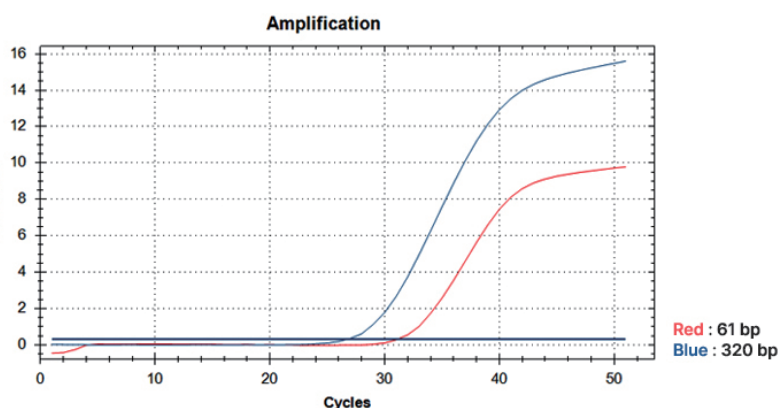
Cat.No	Size
CMFR0050	50 prep
CMFR0100	100 prep

Applications

- cDNA synthesis
- RT-PCR, RT-qPCR
- Cloning

Application to real-time quantitative RT-PCR

Total RNA was extracted from the FFPE section using LaboPass™ FFPE RNA Kit. The extracted total RNA can be successfully subjected to Real time RT-qPCR assay.



Total RNA extracted from the mouse kidney section was subjected to 1-step RT-qPCR.
Gene targeted 61 bp (red) between exon1 and exon2 of mouse GAPDH and 320 bp (blue) between exon1 and exon3 of mouse GAPDH.

LaboPass™ One-Step RT-PCR Kit

LaboPass™ One-Step RT-PCR Kit offers a convenient system to perform both cDNA synthesis and PCR amplification with gene-specific primers and RNA templates in a single tube. The system consists of two major components: Enzyme Mix and 2X Reaction Mix. Enzyme Mix is a blend of LaboPass™ M-MuLV Reverse Transcriptase, IP-*Taq* polymerase, and RNase inhibitor. 2X Reaction Mix is formulated to enable both reverse transcription and PCR amplification efficiently. Therefore, this kit offers a rapid and easy method to detect a broad size range of RNA targets with high sensitivity.

Cat.No	Size
CMRO050	50 reactions (50 µl/reaction)
CMRO100	100 reactions (50 µl/reaction)

Applications

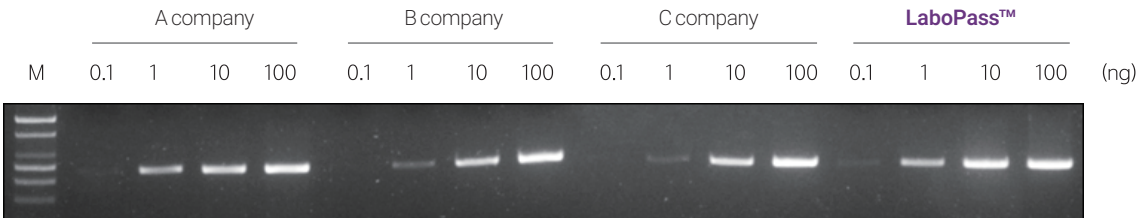
- Qualitative or quantitative analysis of gene expression
- Detection or quantification of RNA viruses
- cDNA amplification for gene cloning

Supplied reagents

- 2X Reaction Mix
- Enzyme Mix
- Nuclease-free water

High sensitivity and yield

LaboPass™ One-Step RT-PCR Kit was compared with other suppliers' kits in amplification of beta-actin mRNA from a serially diluted total RNA. Labopass™ One-Step RT-PCR Kit shows comparable or better quality in sensitivity and yield.



LaboPass™ T4 DNA Ligase

LaboPass™ T4 DNA Ligase is isolated from a recombinant source. This enzyme catalyzes the formation of a phosphodiester bond between neighboring 5' phosphate and 3' hydroxyl termini of double-stranded DNA in either a cohesive or blunt-ended configuration. Single-strand breaks in dsDNA are repaired by T4 DNA Ligase. T4 DNA Ligase can also catalyze the ligation of RNA to duplex DNA or RNA, but the activity toward single-stranded DNA or RNA is very low.

Cat.No	Size
CMX0101	20,000 unit (400 unit/μl)
CMX0105	100,000 unit (400 unit/μl)

Applications

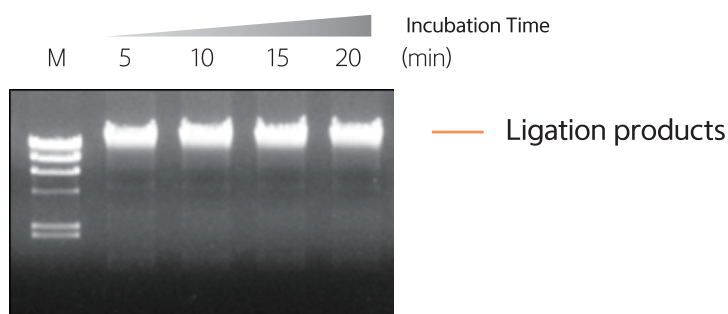
- Cohesive or blunt termini ligation
- Repair of nicks in duplex DNA or RNA
- Linker or adaptor joining to DNA fragments

Supplied reagents

- T4 DNA Ligase
- 10X T4 DNA Ligase buffer

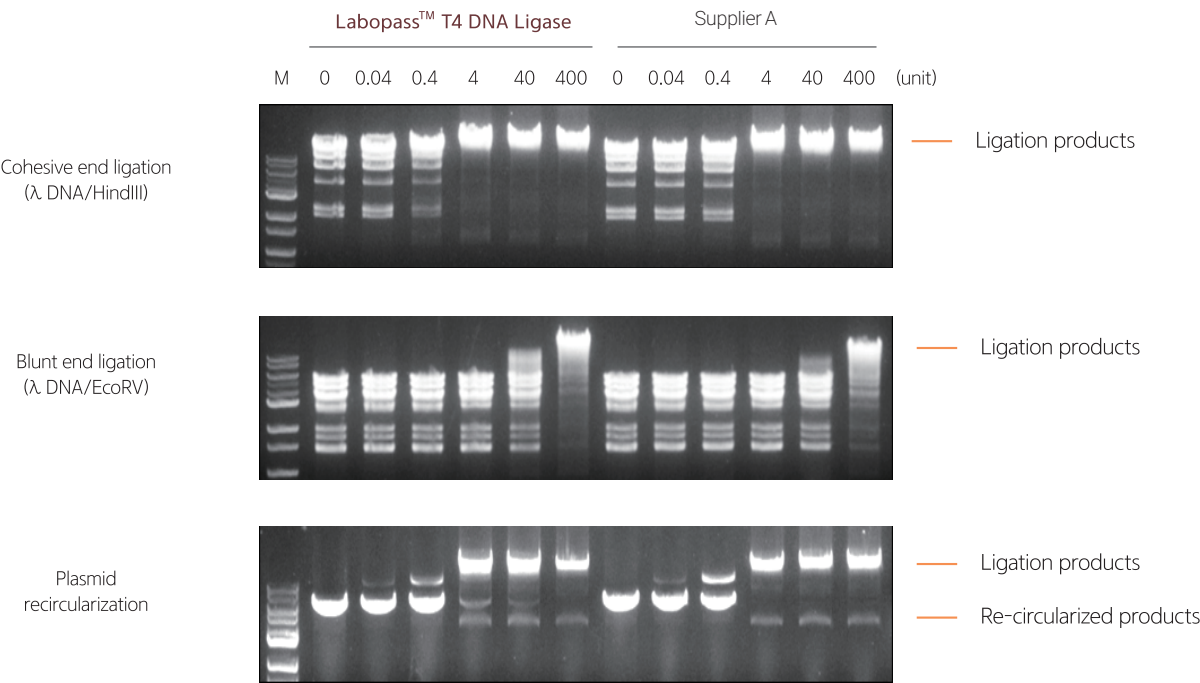
Very fast ligation

1 μg of λ DNA/HindIII DNA was incubated for indicated time with 400 units of T4 DNA Ligase in 1X Ligase Buffer at 16°C. All DNA fragments are ligated in just 5 min.



High ligation efficiency

1 µg of cohesive-ended (λ DNA/HindIII), blunt-ended (λ DNA/EcoRV), or linearized plasmid DNAs was incubated with one unit of T4 DNA Ligase in 1X Ligase Buffer for 30 min at 16°C. When compared with a competitor's product, LaboPass™ T4 DNA Ligase showed comparable or better quality in ligation activity.



RealPass™

Hot start *Taq* DNA Polymerase

- 48** 2X qPCR Mastermix Ver 1.0
- 49** 2X qPCR Mastermix with UDG Ver 1.0
- 50** SYBR Green Q Master
- 51** EvaGreen Q Master
- 52** 2X RT-qPCR Mastermix Ver 1.0 (probe)
- 53** 2X RT-qPCR Mastermix with UDG Ver 1.0 (probe)

RealPass™ 2X qPCR Mastermix Ver 1.0

RealPass™ qPCR Mastermix is a ready-to-use reagent that includes all the components (buffer, Hot-*Taq*, dNTPs, stabilizers) required for a real-time PCR reaction except for target-specific primers, probes and template. It contains the antibody-based Hot Start *Taq* DNA Polymerase to inhibit non-specific amplification.

Cat.No	Size
CMQP101	1.0 ml X 1

Applications

- Target DNA quantification
- Multiplexing real-time PCR
- Pathogen detection
- TA cloning

Supplied reagents

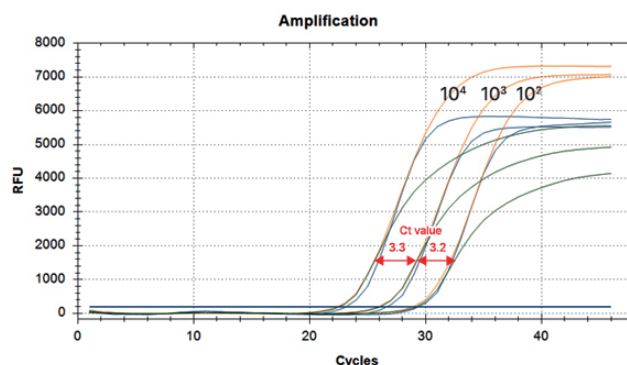
- 2X qPCR Mastermix 1 ml

Product Feature

- Ready to use 2X Mastermix
- Components : Hot start IP-*Taq* polymerase (antibody based), reaction buffer, dNTPs and stabilizers
- Specificity : Hot Start *Taq* DNA Polymerase and the optimized buffer eliminate non-specific amplification and formation of primer dimers
- Sensitivity : Detects low copy number target gene
- Wide range
- PCR is possible up to 3 kb

Multiplex Real-time PCR

RealPass™ 2X qPCR Mastermix is capable of multiplex PCR at various concentrations, and when tested from 1×10^4 copy/ μ l to 1×10^2 copy/ μ l, the difference in Ct values at each 10-fold concentration difference was 3.3 ± 0.1 , boasting a PCR efficiency of >95%.



RealPass™

2X qPCR Mastermix with UDG Ver 1.0

RealPass™ qPCR Mastermix with UDG is a ready-to-use reagent that includes all the components (buffer, Hot-*Taq*, dNTPs, dUTP, stabilizers) required for a real-time PCR reaction except for target-specific primers, probes and template.

It contains the antibody-modified Hot Start *Taq* DNA Polymerase to inhibit non-specific amplification. RealPass™ qPCR Mastermix contains dUTP and heat-labile Uracil-DNA glycosylase (UDG). UDG can efficiently remove uracil from single-stranded or double-stranded DNA. Also, RealPass™ qPCR Mastermix with UDG can be protected against carry-over contamination from PCR products.

Cat.No	Size
CMQPU101	1.0 ml X 1

Applications

- Target DNA quantification
- Multiplexing real-time PCR
- Pathogen detection

Supplied reagents

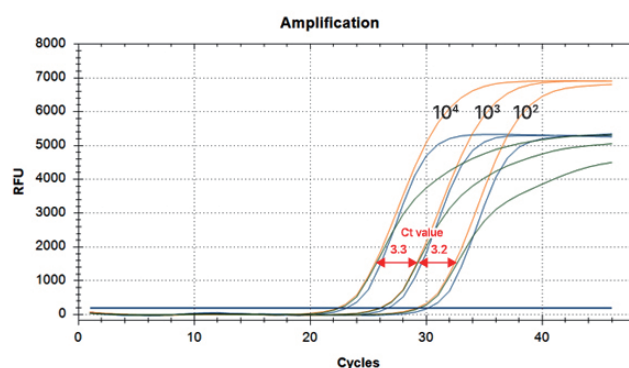
- 2X qPCR Mastermix with UDG 1 ml

Product Feature

- Ready to use 2X Mastermix
- Components : Hot start IP-*Taq* polymerase (antibody based), reaction buffer, dNTPs and stabilizers
- Specificity : Hot Start *Taq* DNA Polymerase and the optimized buffer eliminate non-specific amplification and formation of primer dimers
- Sensitivity : Detects low copy number target gene
- Wide range
- PCR is possible up to 3 kb

Multiplex Real-time PCR

RealPass™ qPCR Mastermix with UDG is capable of multiplex PCR at various concentrations, and when tested from 1×10^4 copy/ μ l to 1×10^2 copy/ μ l, the difference in Ct values at each 10-fold concentration difference was 3.3 ± 0.1 , boasting a PCR efficiency of >95%.



RealPass™ SYBR Green Q Master

RealPass™ SYBR Green Q Master is a specifically formulated reaction mixture for quantitative real-time PCR (qPCR) with a fluorescent DNA-binding dye, SYBR Green I. Compared to probe-based systems, SYBR Green I-based qPCR system is a cost-effective and simple method because it does not require any fluorescent dye, labeled probe, or effort for probe design.

This product contains the Hot Start *Taq* DNA Polymerase modified by an antibody to inhibit non-specific amplification. Therefore, it reduces abnormal signals caused by non-specific amplification.

Cat.No		Size
No ROX	CMQSH01	1.0 ml X 1
ROX	CMQSHR01	1.0 ml X 1

Applications

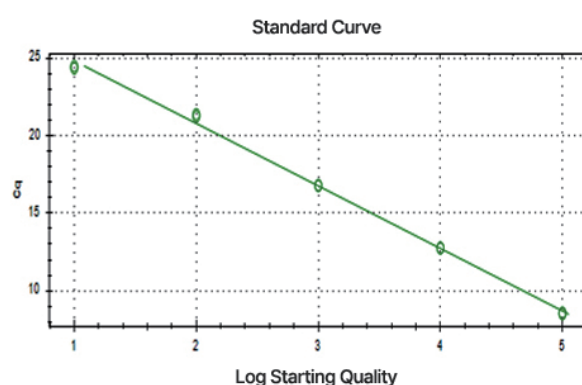
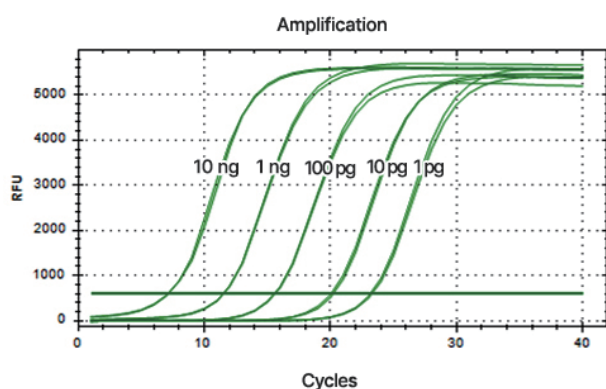
- Real-time quantification of DNA and cDNA targets
- Microbial & Viral pathogen detection
- SNP genotyping

Supplied reagents

- 2X SYBR Green Q Mastermix 1 ml

High sensitivity & strong fluorescence signal

RealPass™ SYBR Green Q Master contains Hot start *Taq* polymerase and specific PCR enhancer to achieve high sensitivity and specificity of PCR performance.



RealPass™ EvaGreen Q Master

RealPass™ EvaGreen Q Master is a specifically formulated reaction mixture for quantitative real-time PCR (qPCR) with a fluorescent DNA-binding dye, EvaGreen. EvaGreen dye has excitation and emission spectra very close to SYBR Green I used widely in qPCR. Unlike SYBR Green I, EvaGreen dye is extremely stable both thermally and hydrolytically. Especially, EvaGreen dye exhibits very low PCR inhibition, permitting the use of saturation dye concentration for maximal signal and high-resolution melting (HRM) analysis. This product contains the Hot Start *Taq* DNA Polymerase modified by an antibody to inhibit non-specific amplification. Therefore, it reduces abnormal signals caused by non-specific amplification.

Cat.No		Size
No ROX	CMQEH01	1.0 ml X 1
ROX	CMQEHR01	1.0 ml X 1

Applications

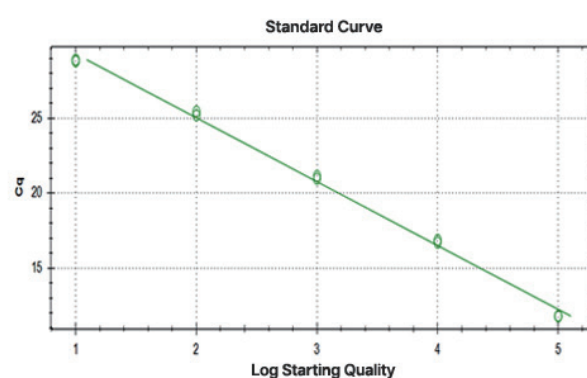
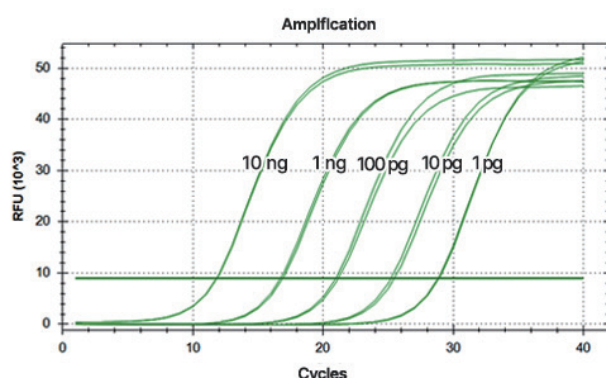
- Real-time quantification of DNA and cDNA targets
- Microbial & Viral pathogen detection
- SNP genotyping

Supplied reagents

- 2X EvaGreen Q Mastermix 1 ml

High sensitivity & strong fluorescence signal

RealPass™ EvaGreen Q Master contains Hot start *Taq* polymerase and specific PCR enhancer to achieve high sensitivity and specificity of PCR performance.



RealPass™ 2X RT-qPCR Mastermix Ver 1.0 (probe)

RealPass™ 2X RT-qPCR Mastermix is a ready-to-use reagent containing all components for analysis of RNA using a one-step reverse transcription-quantitative PCR (RT-qPCR) protocol and enables real-time PCR using probe. This product contains the Hot Start *Taq* DNA Polymerase modified by an antibody to inhibit non-specific amplification. In addition, it contains reverse transcriptase, enabling one-step RT-qPCR.

Cat.No	Size
CMQRP101	1 ml X 1 (100 reaction)

Applications

- Gene expression
- Target DNA quantification
- Multiplexing real-time PCR
- Pathogen detection
- TA cloning

Supplied reagents

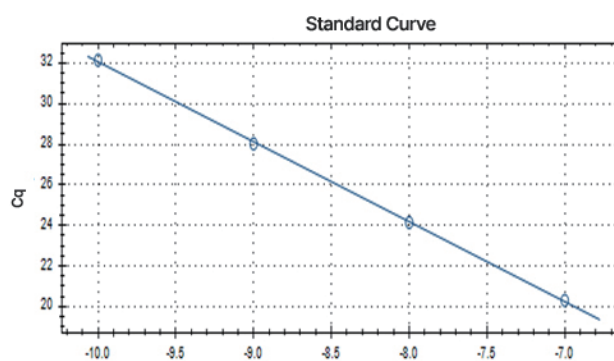
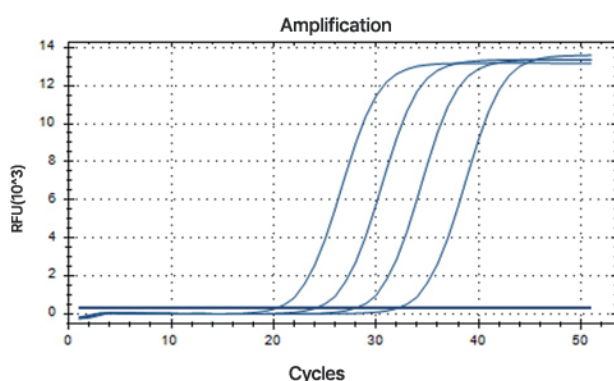
- 2X RT-qPCR Mastermix 1 ml

Product Feature

- Ready to use 2X Mastermix
- Components : Hot start IP-*Taq* polymerase (antibody based), Reverse Transcriptase, RNase Inhibitor, reaction buffer, dNTPs and stabilizers
- Specificity : Hot Start *Taq* DNA Polymerase and the optimized buffer eliminate non-specific amplification and formation of primer dimers
- Sensitivity : Detects low copy number target gene
- PCR is possible up to 3 kb

Amplification & Standard curve

RealPass™ 2X RT-qPCR Mastermix is capable of high-sensitivity RT-qPCR.



RealPass™ 2X RT-qPCR Mastermix with UDG Ver 1.0 (probe)

RealPass™ 2X RT-qPCR Mastermix is a ready-to-use reagent containing all components for analysis of RNA using a one-step reverse transcription-quantitative PCR (RT-qPCR) protocol and enables real-time PCR using probe. This product contains the Hot Start *Taq* DNA Polymerase modified by an antibody to inhibit non-specific amplification. In addition, it contains reverse transcriptase, enabling one-step RT-qPCR. The RealPass™ RT-qPCR Mastermix with UDG contains heat-labile Uracil-DNA glycosylase (UDG), dATP, dCTP, dGTP, dTTP and dUTP. UDG can efficiently remove uracil from single-stranded or double-stranded DNA. In addition, this product can protect against carry-over contamination from PCR products.

Cat.No	Size
CMQRPU101	1 ml X 1 (100 reaction)

Applications

- Gene expression
- Target DNA quantification
- Multiplexing real-time PCR
- Pathogen detection
- Protects cross/carry over contamination

Supplied reagents

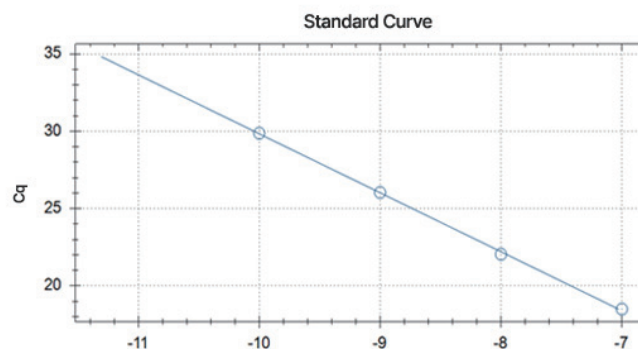
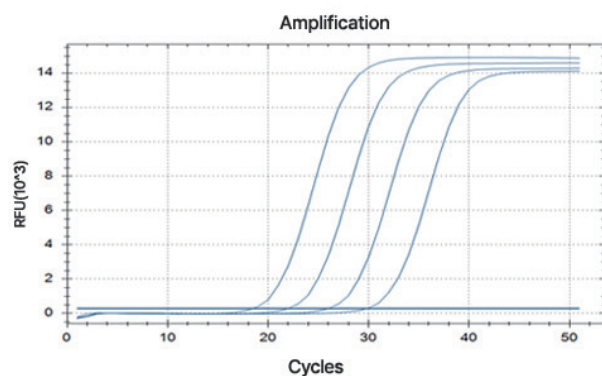
- 2X RT-qPCR Mastermix with UDG 1 ml

Product Feature

- Ready to use 2X Mastermix
- Components : Hot start IP-*Taq* polymerase (antibody based), Reverse Transcriptase, RNase Inhibitor, reaction buffer, dNTPs and stabilizers
- Specificity : Hot Start *Taq* DNA Polymerase and the optimized buffer eliminate non-specific amplification and formation of primer dimers
- Sensitivity : Detects low copy number target gene
- PCR is possible up to 3 kb

Amplification & Standard curve

RealPass™ 2X RT-qPCR Mastermix is capable of high-sensitivity RT-qPCR.



LaboPass™ Ordering Information

DNA Purification Kit

Cat. No.	Product Description	Size
CMP0111	LaboPass™ Plasmid DNA Purification Mini Kit	50 prep
CMP0112		200 prep
CMP0115		1,000 prep
CMG0111	LaboPass™ Gel Extraction Kit	50 prep
CMG0112		200 prep
CMG0115		1,000 prep
CMR0111	LaboPass™ PCR Purification Kit	50 prep
CMR0112		200 prep
CMR0115		1,000 prep
CMA0111	LaboPass™ Gel and PCR Clean-up Kit	50 prep
CMA0112		200 prep
CMA0115		1,000 prep
CME0111	LaboPass™ Tissue Genomic DNA Isolation Mini Kit	50 prep
CME0112		200 prep
CME0115		1,000 prep
CMB0111	LaboPass™ Blood Genomic DNA Isolation Mini Kit	50 prep
CMB0112		200 prep
CMB0115		1,000 prep
CMBA0111	LaboPass™ Bacteria Genomic DNA Isolation Mini Kit	50 prep
CMBA0112		200 prep
CMBA0115		1,000 prep
CMF0111	LaboPass™ FFPE Genomic DNA Isolation Mini Kit	50 prep
CMF0112		200 prep
CMF0115		1,000 prep
CMX0112	LaboPass™ Genomic DNA Isolation Kit (solution type)	200 prep
CMX0115		1,000 prep

DNA Polymerase

Cat. No.	Product Description	Size
CMT1002	IP- <i>Taq</i> DNA polymerase (2.5 u/ul)	500 unit
CMT2002	IP <i>pro-Taq</i> DNA polymerase (2.5 u/ul)	500 unit
CMT4002	IP- <i>Pfu</i> DNA polymerase (2.5 u/ul)	500 unit
CMT6004	IP- <i>Taq</i> PCR Premix	96 tube, 20 ul
CMT6005	IP <i>pro-Taq</i> PCR Premix	96 tube, 20 ul
CMT6006	IP- <i>Pfu</i> PCR Premix	96 tube, 20 ul
CMT7006	IP- <i>Taq</i> PCR Mastermix	0.2 ml x5, 100 reaction
CMT7007	IP <i>pro-Taq</i> PCR Mastermix	0.2 ml x5, 100 reaction
CMT7008	IP- <i>Pfu</i> PCR Mastermix	0.2 ml x5, 100 reaction

qPCR Master

Cat. No.	제 품 명	Size
CMQE200	EvaGreen Q Master mix (No ROX)	1 ml x2, 200x20ul reaction
CMQE500		1 ml x5, 200x20ul reaction
CMQE1000		1 ml x10, 200x20ul reaction
CMQER200	EvaGreen Q Master mix (ROX)	1 ml x2, 200x20ul reaction
CMQER500		1 ml x5, 200x20ul reaction
CMQER1000		1 ml x10, 200x20ul reaction
CMQS200	SYBR Green Q Master mix (No ROX)	1 ml x2, 200x20ul reaction
CMQS500		1 ml x5, 200x20ul reaction
CMQS1000		1 ml x10, 200x20ul reaction
CMQSR200	SYBR Green Q Master mix (ROX)	1 ml x2, 200x20ul reaction
CMQSR500		1 ml x5, 200x20ul reaction
CMQSR1000		1 ml x10, 200x20ul reaction

DNA Ladder / dNTPs

Cat. No.	Product Description	Size
CMM7006	1 kb DNA Ladder II	250 µl x 2 (100 lane)
CMM7007	1 kb plus DNA Ladder II	250 µl x 2 (100 lane)
CMM7008	100 bp DNA Ladder II	250 µl x 2 (100 lane)
CMM7009	100 bp plus DNA Ladder II	250 µl x 2 (100 lane)
dATP	NT010	100mM, 1ml
dCTP	NT020	100mM, 1ml
dGTP	NT030	100mM, 1ml
dTTP	NT040	100mM, 1ml
dUTP	NT070	100mM, 1ml
dNTP Set	NT050	each 100mM, 0.25ml
dNTP Mix	NT060	each 2.5mM, 0.5ml x 2

RNA Related Products

Cat. No.	Product Description	Size
CMRT010	M-MuLV Reverse Transcriptase	10,000 unit
CMRT050		50,000 unit
CMRN002	RNase Inhibitor	2,000 unit
CMRN010		10,000 unit
CMRTK001	cDNA synthesis kit	50 prep
CMRTK002		100 prep
CMRO050	One-Step RT-PCR kit	50 prep
CMRO100		100 prep
CMRZ001	Labozol reagent	100 ml
CMRO050	Total RNA kit	50 prep
CMRR0100		100 prep
CMFR0050	FFPE RNA Isolation Mini Kit	50 prep
CMFR0100		100 prep

Modification enzymes

Cat. No.	Product Description	Size
CMX0101	T4 DNA Ligase	20,000 unit
CMX0105		100,000 unit

RealPass™ Ordering Information

Hot start Taq DNA Polymerase

Cat. No.	Product Description	Size
CMQP101	2X qPCR Mastermix Ver 1.0	1.0 ml X 1
CMQPU101	2X qPCR Mastermix with UDG Ver 1.0	1.0 ml X 1
CMQSH01	SYBR Green Q Master	1.0 ml X 1
CMQSHR01	SYBR Green Q Master(ROX)	1.0 ml X 1
CMQEH01	EvaGreen Q Master	1.0 ml X 1
CMQEHR01	EvaGreen Q Master(ROX)	1.0 ml X 1
CMQRP101	2X RT-qPCR Mastermix Ver 1.0 (probe)	1 ml X 1 100 reaction
CMQRPU101	2X RT-qPCR Mastermix with UDG Ver 1.0 (probe)	1 ml X 1 100 reaction

GLOBAL PARTNERS



AZENTA

ssDNA, FragmentGENE, Synthetic DNA Library, PriorityGENE, TurboGENE



CUSABIO

ELISA Kits, Molecular Biology Product, Protein, Antibody, Raw Material of IVD Kit



ThermoFisher

Custom TaqMan® Primers and Probes, Pre-designed TaqMan® Assay, Primer/Probe Set



GeneCopoeia

Expression-ready clones (ORF, miRNA products, shRNA, and kit), Genome editing
Histology, Fluorescent Labeling & Detection, Lentiviral system



GenePharma

siRNA, miRNA, shRNA



SARSTEDT

Plastic ware



AXYGEN

Plastic ware



FALCON

Plastic ware



SSIbio

Tip, Tube, PCR plate



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