



# Research Reagent Selection Guide

Quality is never an accident; it is always the result of intelligent effort  
Whatever you do, do cautiously, and look to the end

# Research Reagent Selection Guide

## SolGent

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# About Us

## SolGent manufacturing Center & Research institute

SolGent manufacturing center and research institute are equipped with the latest facility include sterilizing system in 2,000sqm.



## SolGent Standard for product quality

### Global standard



▶ 100% QC Double Check system for all products  
The biggest merit of SolGent's product is that whenever customer can meet 100 % QC system for all products. SolGent does our best to guarantee the quality for customer satisfaction.

## For Diagnostics

Clinical laboratory, Hospital, Diagnostic manufacturer

## For Research

University, Research Institute, Distributor

### PCR enzyme master mix

- > Stability against various temperature and period
- > Specific multiplex targets
- > Easy-to-use

- Multiplex PCR Smart mix
- Multiplex qPCR Smart mix
- Multiplex DnaFree PCR Smart mix
- OneStep Multiplex RT-PCR Smart mix
- OneStep Multiplex RT-qPCR Smart mix



### MDx kit

- > Multiple-target at once using Multiplex PCR
- > CE certificate

- TB series: MTC/NTM, MTB/M.bovis, M.avium/M.intracellular
- RV13: Major respiratory 13 viruses
- Influenza series: Inf A/B, Inf A subtype( 6 types)
- Malaria/Malaria
- Dengue fever virus
- ACD
- MTHFR
- ApoE



### PCR condition set-up

- > Less spend cost, time and labor to set up PCR
- > No need complex works

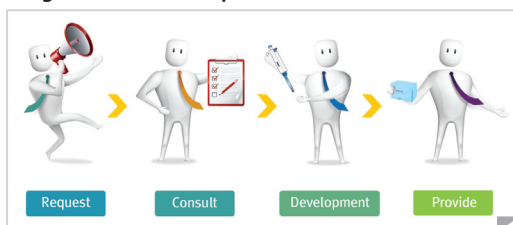
- PCR condition set up
- Customized PCR reagents
- Training the staffs
- Troubleshooting

### Enzyme/Prep kit

- General PCR
- HotStart PCR
- Real-Time PCR
- RT-PCR
- Long PCR
- DNA prep kit
- RNA prep kit



### Diagnostics Kit Development



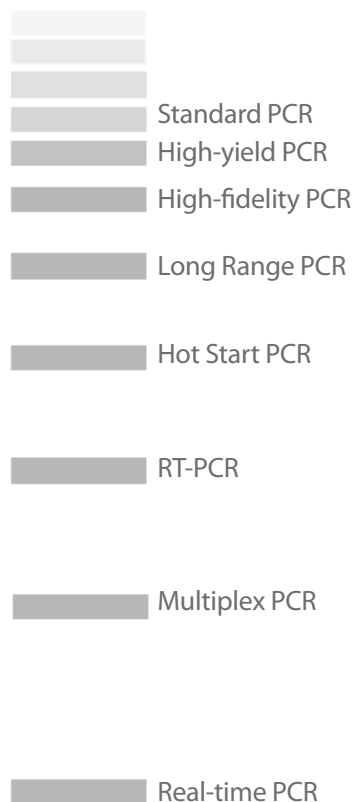
### Genomic analysis service

- Sequencing service
- NGS
- SSR/SNP
- Bioinformatics





# SolGent PCR Enzyme Portfolio



## Your work is challenging. Choosing the right PCR reagent shouldn't be.

The SolGent PCR reagent line is a concise portfolio of powerful enzymes built to satisfy the broad range of demanding PCR applications. Whether you are performing routine detection or site-directed mutagenesis, our line provides a clear solution for success with your application. To deliver the optimum in assay flexibility, our enzymes are supported by a range of convenient formats and custom services to suit any workflow.

This complete portfolio of PCR solutions is the result of over 20 years of ongoing development activities, which include both in-house research and collaborations with industrial and academic partners. Our commitment to continual innovation enables us to provide you with the best PCR systems, now and in the future.

## Look to the Thermo Scientific reagent line for a clear solution to your PCR challenge.

SolGent PCR Reagent	Product Size	Fidelity	Yield	Speed	Specificity	Sensitivity	Hot start	Host DNA free
DiaStar™ <i>Taq</i>	< 5 kb	-	+++	+++	++	++++		
DiaStar™ <i>EF-Taq</i>	< 40 kb	++	+++	+++	++	++++		
DiaStar™ <i>Fh-Taq</i>								
DiaStar™ Multiplex								
SolGent™ <i>f-Taq</i>	<1 kb	-	+	++	+++	+		
SolGent™ <i>h-Taq</i>	<1 kb	-	+	++	+++	+		
SolGent™ <i>Taq</i>	<5 kb	-	++	++	+	+++	-	
SolGent™ <i>e-Taq</i>	<5 kb	-	++	++	+	++	-	
SolGent™ <i>EF-Taq</i>	< 40 kb	++	+++	++	+	+++	-	
SolGent™ <i>Pfu</i>	< 3 kb	++++	++	++	++	++		
SolGent™ <i>Pfu-X</i>	< 20 kb	++++	++	++++	++	++		
DiaStar™ RT-kit								
DiaStar™ OneStep RT-Kit	< 1 kb							

# Standard PCR

## Taq DNA Polymerase

PCR is a highly sensitive reaction, and impurities in the enzyme mix can cause reduced efficiency or complete reaction inhibition. Any PCR application, no matter how routine, requires a *Taq polymerase* that is highly purified, and performs consistently from batch to batch.

SolGent™ *Taq DNA Polymerase* is a ultra-pure recombinant thermo-stable DNA polymerase obtained by high level expression of the *Taq DNA polymerase gene* in *Escherichia coli*. SolGent™ *Taq DNA Polymerase* is optimized for PCR and is able to amplify DNA fragments up to 5 kb. Stringent quality controls make this a highly reliable *Taq DNA polymerase* for use in all routine PCR, RT-PCR applications and even if diagnosis.

Band Doctor™ is a novel and innovative buffer to solve template and primers structural problem based on SolGent' powerful technology. GC-rich or secondary structural problem of template and even if or low yield of PCR amplification problems are solved with Band Doctor™.

SolGent™ *Taq*  
SolGent™ *e-Taq*

Benefits:

- Reliable performance in all routine PCR applications
- Extensive QC testing ensures batch-to-batch consistency
- Efficient for difficult or low yield PCR amplification with unique buffer system and Band Doctor™

Fig.1 Comparison data with SolGent™ *Taq* polymerase and major companies *Taq* polymerase on various sizes of targets

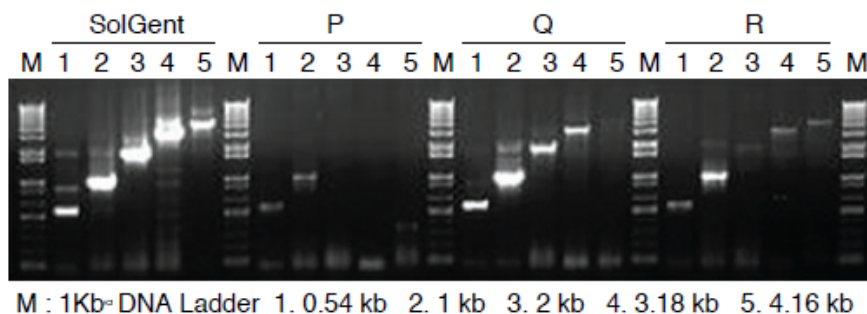
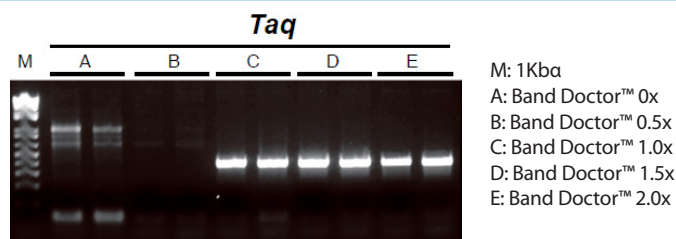


Fig.2 Buffer effect with Band Doctor™ on human DRD4 exon3(VNTR)



# Long Range PCR

## Long-range PCR with low error rate

When working with longer length targets, it is important to use an appropriate enzyme system to ensure the generation of full length product. Standard Taq DNA polymerase incorporates approximately 1 error in every 9 kb. This error can cause the polymerase reaction to stop, or proceed very slowly, leading to incomplete amplicons. For long PCR, a system composed of a DNA polymerase and a proofreading enzyme, will give successful amplification; the DNA polymerase performs the nucleotide additions, and the proofreading enzyme corrects any mismatched bases, allowing the polymerase to amplify long sections of the template.

SolGent™ Long-range PCR enzyme system is an optimized mix of DNA Polymerase from *Pyrococcus furiosus* & *Thermus aquaticus*. The two enzymes act synergistically to generate long PCR products, up to 40 kb. This makes the enzyme blend ideal for robust full-length amplification of long range sequences. PCR products generated can be used directly in T/A cloning. Despite the 3' to 5' exonuclease (proofreading) activity present in the mix, the SolGent™ EF Taq DNA Polymerase generates sufficient product with an A overhang, eliminating the need to add A overhangs post PCR.

SolGent™ EF Taq  
DiaStar™ EF Taq  
SolGent™ Pfu-X

**Benefits:**

- Proprietary enzyme blend amplifies targets up to 40 kb in length
- Unique blend and optimized buffer combination delivers increased accuracy and yield
- Alternative buffering system for success with GC-rich targets

Fig.1 Amplification data with genomic DNA using SolGent™ EF-Taq DNA polymerase

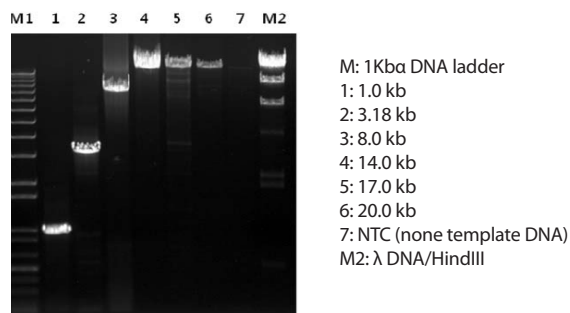
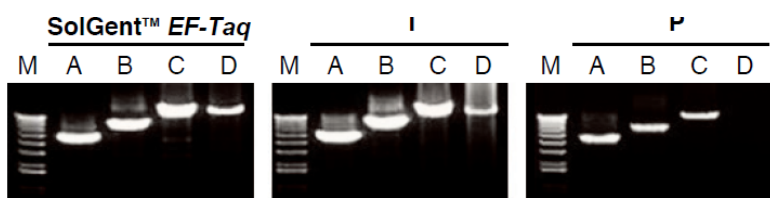


Fig.2 Comparison of commercial EF-Taq DNA polymerase on various sizes of targets



Comparison with other company product  
M 1 kb DNA ladder    A · 4 kb    B · 6 kb    C · 10 kb    D · 16 kb

# High-Fidelity PCR

## Ultra-high fidelity and ultra-high processivity

Demanding applications, such as cloning and mutagenesis, require a high performance proofreading enzyme that delivers maximum accuracy and yield.

SolGent™ ultra-high fidelity Pfu DNA polymerase is an advanced proofreading enzyme that delivers superior fidelity and processivity. The enzyme from *pyrococcus furiosus* is a modified DNA polymerase with enhanced proofreading activity and high template binding affinity. The enhanced proofreading activity generates highly accurate PCR products, and the increased affinity dramatically improves processivity and yield. Additionally, the increased processivity allows for up to 75% reduction in PCR protocol times for faster results.

Band Doctor™ also helps SolGent™ Pfu DNA polymerase work through difficult templates, making it a robust enzyme successful on a wide variety of targets. SolGent™ ultra-high fidelity Pfu DNA polymerase is provided with optimized buffering systems, our high-fidelity buffer for success with most templates, and a Band Doctor™ for success with GC-rich and other difficult to amplify templates.

SolGent™ Pfu  
SolGent™ Pfu-X

Benefits:

- Ultra-high proofreading capabilities for 12 times more fidelity compare than Taq polymerase
- Enhanced processivity for increased yield and up to 75% reduction in protocol times
- Flexible buffering systems for success with a variety of templates

Fig.1 Comparison data with commercial Pfu DNA polymerase on various sizes of targets and its fidelities

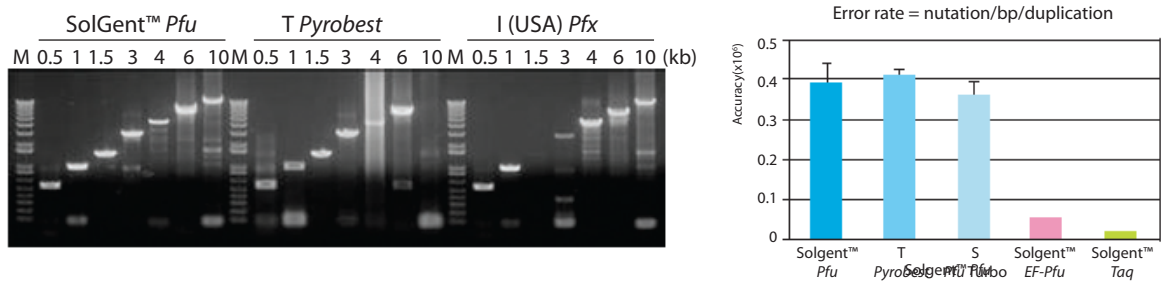
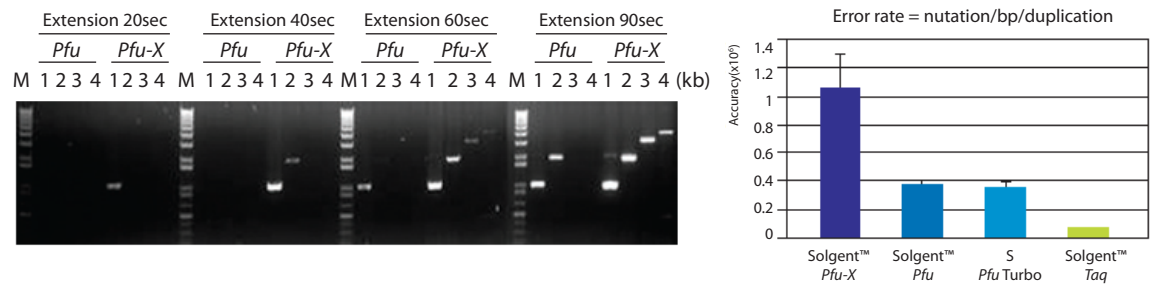


Fig.2 The express speed and the fidelity of SolGent™ Pfu-X DNA polymerase





# Hot-Start PCR

## Chemically or antibody-modified hot-start Taq DNA polymerase

During PCR set-up, reaction samples may be exposed to sub-optimal annealing temperatures, allowing primers to anneal to each other or to non-specific segments of the template. During this time, active DNA polymerase can extend these misaligned primers to create primer-dimers or non-specific product. This amplification of non-specific product continues throughout PCR cycling, consuming reaction components and reducing the amplification efficiency for the target sequence, resulting in reduced assay sensitivity and end yield of the target product.

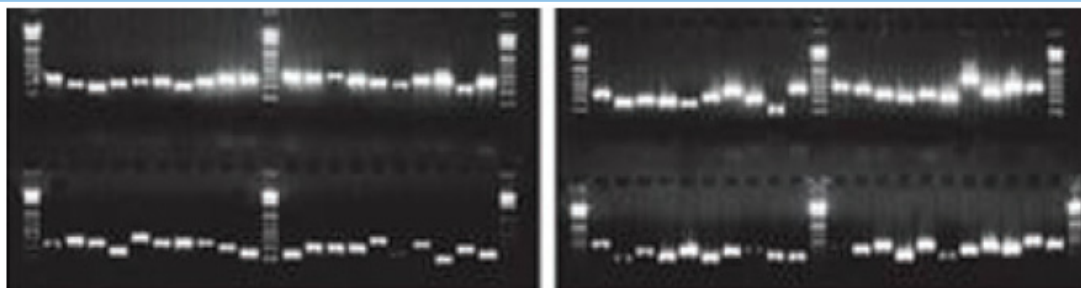
SolGent™ hot-start Taq DNA Polymerase eliminates this non-specific amplification by preventing DNA polymerase activity from occurring during assay set-up. The polymerase activity is suspended using a covalent chemical or antibody-mediated modification that inhibits all enzyme activity. This modification is maintained until reversed by a 5 to 15 minute 95°C activation step. In addition, the SolGent™ *Fh-Taq* DNA polymerase is free from host DNA contamination so that can extremely accurate detection of target product. SolGent™ hot-start DNA polymerase system is the best optimized product for molecular diagnostic kit, genotyping or screening system.

*DiaStar™ Taq*  
*DiaStar™ EF-Taq*  
*SolGent™ h-Taq*  
*SolGent™ f-Taq*  
*SolGent™ Fh-Taq*

*Benefits:*

- Hot-start activation for stringent specificity
- 5 to 10 min activation step at 95°C
- Host DNA contamination free system

Fig.1 Broad range annealing temperature with SolGent™ h-Taq DNA polymerase



Template: Human genomic DNA 100ng/ul, Primer: 81 set, Annealing temperature: 55°C

Fig.2 Comparison data with SolGent™ hot-start Taq DNA polymerase and commercial hot-start Taq DNA polymerase



# Multiplex PCR

## Multiple target at once

Multiplex PCR is a powerful technique that enables amplification of two or more products in parallel in a single reaction tube. It is widely used in genotyping applications and different areas of DNA testing in research, forensic, and diagnostic laboratories. DNA tested typically originates from a variety of eukaryotic (human, animal, and plant) and prokaryotic (bacterial and viral) sources.

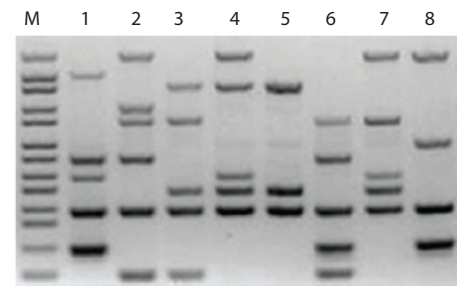
The SolGent™ Multiplex PCR Kit is the first commercially available kit for multiplex PCR (up to 21 bands). It minimizes the need for optimization, making the development of multiplex PCR assays both simple and fast. Absolutely host DNA contamination free system enables highly specific and accurate detection of target product. SolGent hot-start Taq DNA Polymerase is easily activated by a 5 to 15-minute, 95°C incubation step, which is easy to incorporate into existing thermal cycling programs. The hot start enables reactions to be set up at room temperature, making setup rapid and convenient.

SolGent™ *h-Taq*  
 SolGent™ *Fh-Taq*  
 DiaStar™ 2x multiplex PCR  
 premix

**Benefits:**

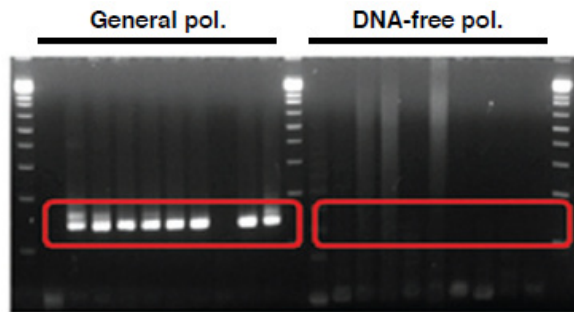
- Highly suited for equal amplification of many fragments in parallel (~21 bands)
- Host DNA contaminations free system
- Ultrafast and high-specific PCR on any thermal cycler with a built-in hot-start

Fig.1 Multiplex allele specific PCR test on rice gene with DiaStar™ *h-Taq* DNA polymerase



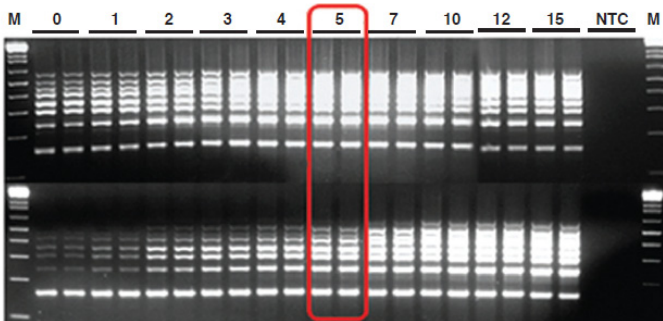
M: rice species size marker  
 1~8: each of rice species

Fig.2 Host DNA contamination detection between general Taq DNA polymerase and SolGent™ *Fh-Taq* DNA polymerase



Red box: Host DNA amplicon

Fig.3 Comparison test for fast hot-star activity time between SolGent™ *h-Taq* DNA polymerase and DiaStar™ 2x multiplex PCR premix



0~15: incubation time(minutes) for activation  
 M: 1Kb° ladder  
 NTC: none template control  
 Upper panel: SolGent™ *h-Taq* DNA polymerase  
 Low panel: DiaStar™ 2x multiplex PCR premix

# RT-PCR

## Triple smart RT-PCR system: easy, simple and wide applications

Successful RT-PCR analysis depends greatly on a robust and sensitive reverse transcription reaction; one with a processive RT enzyme that can effectively transcribe through difficult RNA secondary structure, and a priming method that ensures high cDNA yield while maintaining an unbiased representation of the RNA population.

SolGent RT-PCR system achieves robust and sensitive reverse transcription through the combination of a high affinity RT enzyme and hot-start Taq DNA polymerase, and an optimized buffering system. Included DiaStar™ reverse transcriptase has high RNA template affinity and reduced RNase H activity, allowing the enzyme to generate long cDNA fragments. The generation of long, uninterrupted fragments demonstrates that even sections with high secondary structure are successfully reverse transcribed, ensuring that all RNA sequences are represented in the cDNA pool. Also high specific target DNA amplification enables with mixed hot-start Taq DNA polymerase.

Unique and novel Band Doctor™ system for DiaStar™ RT kit and DiaStar™ OneStep RT-PCR series has been optimized to achieve a full and diverse cDNA pool, and the OneStep system has been developed to attain high performance from both the reverse transcriptase and the DNA polymerase, delivering superior sensitivity and yield.

DiaStar™ RT kit  
DiaStar™ OneStep RT-PCR

Benefits:

- High affinity RT enzyme for robust cDNA synthesis
- Efficient RT reaction allows for 75% shorter protocol times (down to 30 minutes)
- Unique priming strategy for broad template success
- Wide working temperature range for GC rich targets
- RT Enhancer eliminates the need for DNase I treatment

Fig.1 Comparison test for RT-PCR between DiaStar™ RT kit and commercial RT-PCR kit with β-actin

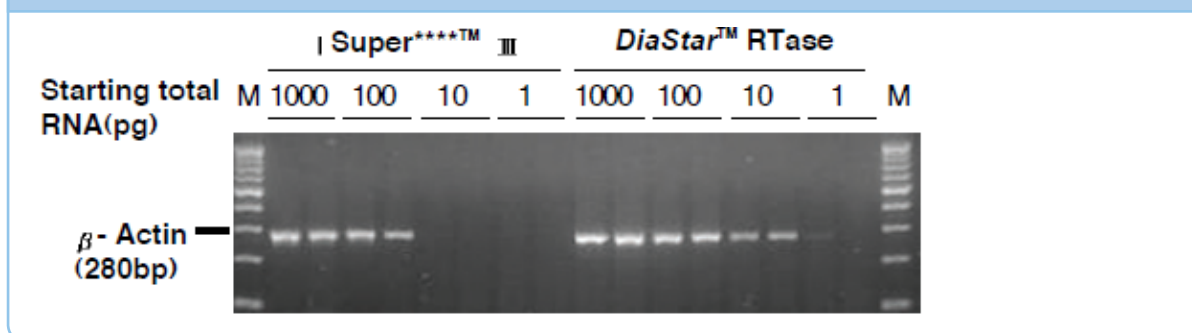
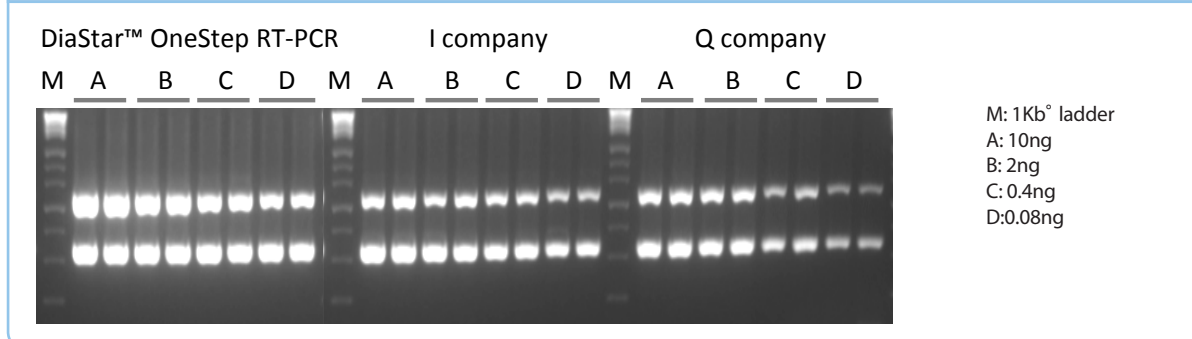


Fig.2 Comparison test for mumps RNA virus detection between DiaStar™ OneStep RT-PCR kit and commercial RT-PCR kit



M: 1Kb<sup>+</sup> ladder  
A: 10ng  
B: 2ng  
C: 0.4ng  
D: 0.08ng

# Real-time PCR

## Quantitative PCR for all target

Real-time PCR and RT-PCR are highly sensitive techniques enabling amplification and quantification of a specific nucleic acid sequence with detection of the PCR product in real time. Quantification of DNA, cDNA, or RNA targets can be easily achieved by determination of the cycle when the PCR product can first be detected. This is in contrast with endpoint detection in conventional PCR, which does not enable accurate quantification of nucleic acids. Real-time PCR is highly suited for a wide range of applications, such as gene expression analysis, determination of viral load, detection of genetically modified organisms (GMOs), SNP genotyping, and allelic discrimination.

SolGent™ Real-time PCR series are designed to perform rapid & accurate real-time quantification of target DNA and comprised of ready-to-use pre-mix and optimized kit. The supplied, or contained EvaGreen dye in master mix and hot-start enzyme, h-Taq enables highly specific and rapid PCR technology. 2x real-time premix are optimized all kinds of fluorescent probe beside EvaGreen with various MgCl<sub>2</sub> concentration. Optimal 10X Real-time PCR reaction buffer and innovative Band Doctor™ lead to specific detection of low copy numbers and accurate detection of a wide range of template amounts.

SolGent™ Real-time PCR kit  
SolGent™ Real-time PCR pre-mix

Benefits:

- Fast, accurate & high-specific detection
- Optimized enzyme and buffer system for detection all target RNA, RNA, or cDNA
- Robust and reliable result with high resolution and no noise using sso7d0fusion protein technology

Fig.1 LOD test of target DNA in parainfluenza virus 1,2 and 3

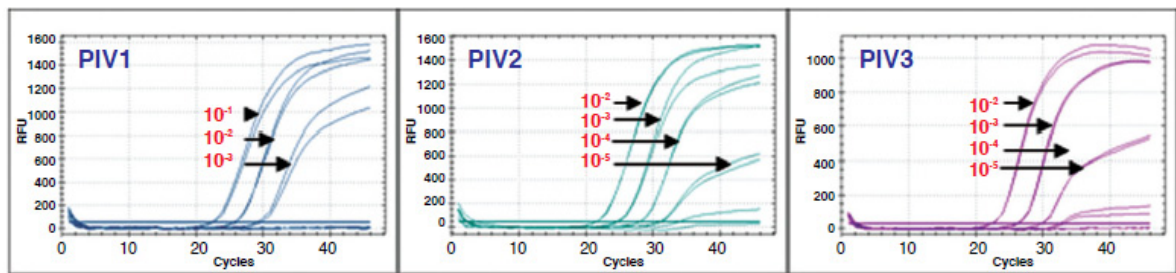
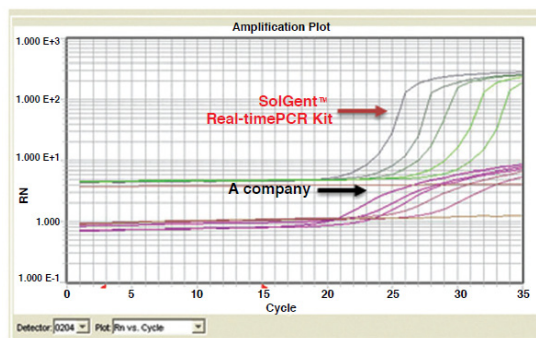


Fig.2 Comparison test for activity of real-time PCR between SolGent™ Real-time PCR kit and commercial real-time PCR 2x mater mix



# Ordering Information

## SolGent™ Taq DNA polymerase

Cat. No	Product	size
STD16-R500	Taq DNA polymerase with 10mM dNTP Mix (0.4 ml)	500 U
STD16-R25h	Taq DNA polymerase with 10mM dNTP Mix (2 ml)	2,500 U
STD16-R50h	Taq DNA polymerase with 10mM dNTP Mix (4 ml)	5,000 U
STD66-R500	Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.4 ml)	500 U
STD62-M50h	2X PCR Optimization Kit (Taq; SG6101~5, each 1 ml), with dye	each 1 ml x 5ea
STD01-M50h	2X PCR Pre-Mix 1 (Taq) without Band Doctor, with dye	5 x 1 ml
STD02-M50h	2X PCR Pre-Mix 2 (Taq) with 0.5X Band Doctor, with dye	5 x 1 ml
STD03-M50h	2X PCR Pre-Mix 3 (Taq) with 1.0X Band Doctor, with dye	5 x 1 ml
STD04-M50h	2X PCR Pre-Mix 4 (Taq) with 1.5X Band Doctor, with dye	5 x 1 ml
STD05-M50h	2X PCR Pre-Mix 5 (Taq) with 2.0X Band Doctor, with dye	5 x 1 ml
STD61-F096	Smart Pre-Mix (Freeze-dried Taq) Optimization Kit (with Suspension Buffer I - IV), 20 ul rxn	96 tubes (8 strips x 12)
STD02-F096	Smart Pre-Mix (Freeze-dried Taq) with Suspension Buffer I (Standard)	96 tubes (8 strips x 12)
STD05-F096	Smart Pre-Mix (Freeze-dried Taq) with Suspension B I (with Band Doctor)	96 tubes (8 strips x 12)
STD22-F096	Smart Pre-Mix (Freeze-dried Taq) with Suspension B II (with B, 15mM MgCl <sub>2</sub> )	96 tubes (8 strips x 12)
STD42-F096	Smart Pre-Mix (Freeze-dried Taq) with Suspension B IV (KCl B, 25mM MgCl <sub>2</sub> )	96 tubes (8 strips x 12)
STD02-F288	Smart Pre-Mix (Freeze-dried Taq) with Suspension Buffer I (Standard)	288 tubes (8 strips x 36)
STD05-F288	Smart Pre-Mix (Freeze-dried Taq) with Suspension B I (with Band Doctor)	288 tubes (8 strips x 36)
STD22-F288	Smart Pre-Mix (Freeze-dried Taq) with Suspension B II (with B, 15mM MgCl <sub>2</sub> )	288 tubes (8 strips x 36)
STD42-F288	Smart Pre-Mix (Freeze-dried Taq) with Suspension B IV (KCl B, 25mM MgCl <sub>2</sub> )	288 tubes (8 strips x 36)
STD02-F576	Smart Pre-Mix (Freeze-dried Taq) with Suspension Buffer I (Standard)	576 tubes (8 strips x 72)
STD05-F576	Smart Pre-Mix (Freeze-dried Taq) with Suspension B I (with Band Doctor)	576 tubes (8 strips x 72)
STD22-F576	Smart Pre-Mix (Freeze-dried Taq) with Suspension B II (with B, 15mM MgCl <sub>2</sub> )	576 tubes (8 strips x 72)
STD42-F576	Smart Pre-Mix (Freeze-dried Taq) with Suspension B IV (KCl B, 25mM MgCl <sub>2</sub> )	576 tubes (8 strips x 72)
STD02-P096	Smart 2X Pre-Mix (Taq) Standard (0.5X Band Doctor™), 30 ul rxn	96 tubes (8 strips x 12)
STD02-P288	Smart 2X Pre-Mix (Taq) Standard (0.5X Band Doctor™), 30 ul rxn	288 tubes (8 strips x 36)
STD02-P576	Smart 2X Pre-Mix (Taq) Standard (0.5X Band Doctor™), 30 ul rxn	576 tubes (8 strips x 72)
STD22-B50h	10X Taq Reaction Buffer	5 x 1 ml
STD10-B50h	10X Taq Mg free Reaction Buffer	5 x 1 ml

## SolGent™ e-Taq DNA polymerase

Cat. No	Product	size
SET15-R500	e-Taq DNA polymerase with 10 mM dNTP Mix (each 10mM, 0.4 ml)	500 U
SET15-R25h	e-Taq DNA polymerase with 10 mM dNTP Mix (each 10mM, 2 ml)	2,500 U (500 U x 5/box)
SET15-R50h	e-Taq DNA polymerase with 10 mM dNTP Mix (each 10mM, 4 ml)	5,000 U (500 U x 5/box) x 2ea
SET22-B50h	10X e-Taq Reaction Buffer	5 x 1 ml

## SolGent™ EF-Taq DNA polymerase

Cat. No	Product	size
SEF16-R250	EF-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.3 ml)	250 U
SEF16-R500	EF-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.6 ml)	500 U
SEF16-R25h	EF-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 3 ml)	2,500 U (500 U x 5/box)
SEF16-R50h	EF-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, total 6 ml)	5,000 U (500 U x 5/box) x 2ea
SEF62-M50h	2X PCR Optimization Kit (EF-Taq; SG6201~5, each 1 ml), with dye	each 1 ml x 5 ea
SEF01-M50h	2X PCR Pre-Mix 1 (EF-Taq), without Band Doctor, with dye	5 x 1 ml
SEF02-M50h	2X PCR Pre-Mix 2 (EF-Taq), with 0.5X Band Doctor, with dye	5 x 1 ml
SEF03-M50h	2X PCR Pre-Mix 3 (EF-Taq), with 1.0X Band Doctor, with dye	5 x 1 ml
SEF04-M50h	2X PCR Pre-Mix 4 (EF-Taq), with 1.5X Band Doctor, with dye	5 x 1 ml
SEF05-M50h	2X PCR Pre-Mix 5 (EF-Taq), with 2.0X Band Doctor, with dye	5 x 1 ml
SEF02-P096	Smart 2X PCR Pre-Mix 2 (EF-Taq) Standard (0.5X Band Doctor™), Reaction Volume 30 ul	96 tubes (8 strips x 12)
SEF02-P288	Smart 2X PCR Pre-Mix 2 (EF-Taq) Standard (0.5X Band Doctor™), Reaction Volume 30 ul	288 tubes (8 strips x 36)
SEF02-P576	Smart 2X PCR Pre-Mix 2 (EF-Taq) Standard (0.5X Band Doctor™), Reaction Volume 30 ul	576 tubes (8 strips x 72)
SEF22-B50h	10X EF-Taq Reaction Buffer	5 x 1 ml

## SolGent™ Pfu DNA polymerase

Cat. No	Product	size
SPD16-R250	Pfu DNA polymerase with 10mM dNTP Mix (each 10mM, 0.3 ml)	250 U
SPD16-R500	Pfu DNA polymerase with 10mM dNTP Mix (each 10mM, 0.6 ml)	500 U
SPD16-R25h	Pfu DNA polymerase with 10mM dNTP Mix (each 10mM, 3 ml)	2,500 U (500 U x 5/box)
SPD16-R50h	Pfu DNA polymerase with 10mM dNTP Mix (each 10mM, 6 ml)	5,000 U (500 U x 5/box) x 2ea
SPD62-M50h	2X PCR Optimization Kit (Pfu; SG6301~5, each 1 ml), with dye	each 1 ml x 5ea
SPD01-M50h	2X PCR Pre-Mix 1 (Pfu) without Band Doctor, with dye	5 x 1 ml
SPD02-M50h	2X PCR Pre-Mix 2 (Pfu) with 0.5X Band Doctor, with dye	5 x 1 ml
SPD03-M50h	2X PCR Pre-Mix 3 (Pfu) with 1.0X Band Doctor, with dye	5 x 1 ml
SPD04-M50h	2X PCR Pre-Mix 4 (Pfu) with 1.5X Band Doctor, with dye	5 x 1 ml
SPD05-M50h	2X PCR Pre-Mix 5 (Pfu) with 2.0X Band Doctor, with dye	5 x 1 ml
SPD01-P096	Smart Pre-Mix (Pfu) Standard (Without Band Doctor), Reaction Volume 30 ul	96 tubes (8 strips x 12)
SPD01-P288	Smart Pre-Mix (Pfu) Standard (Without Band Doctor), Reaction Volume 30 ul	288 tubes (8 strips x 36)
SPD01-P576	Smart Pre-Mix (Pfu) Standard (Without Band Doctor), Reaction Volume 30 ul	576 tubes (8 strips x 72)
SPD22-B50h	10X Pfu Reaction Buffer	5 x 1 ml

## SolGent™ Pfu-X DNA polymerase

Cat. No	Product	size
SPX16-R250	Pfu-X DNA polymerase with 10mM dNTP Mix (each 10mM, 0.3 ml)	250 U
SPX16-R500	Pfu-X DNA polymerase with 10mM dNTP Mix (each 10mM, 0.6 ml)	500 U
SPX16-R25h	Pfu-X DNA polymerase with 10mM dNTP Mix (each 10mM, 3 ml)	2,500 U (500 U x 5/box)
SPX01-P096	Smart 2X PCR Pre-mix (Pfu-X), PCR final volume 30 ul/rxn	96 tubes (8 strips x 12)
SPX01-P288	Smart 2X PCR Pre-mix (Pfu-X)	288 tubes (8 strips x 36)
SPX01-P576	Smart 2X PCR Pre-mix (Pfu-X)	576 tubes (8 strips x 72)
SPX22-B50h	10X Pfu-X Reaction Buffer	5 x 1 ml

## SolGent™ h-Taq DNA polymerase

Cat. No	Product	size
SHT06-R250	h-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.2 ml)	250 U
SHT06-R10h	h-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.8 ml)	1,000 U (250 U x 4/box)
SHT06-R50h	h-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 4 ml)	5,000 U (500 U x 5/box) x 2ea
SHT56-R250	h-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.2 ml), 10 x Mg free buffer, 25 mM MgCl <sub>2</sub> buffer	250 U
SHT62-M40h	2X PCR Optimization Kit (h-Taq; SG6121~4, each 1 ml), with dye	each 1 ml x 4 ea
SHT01-M40h	2X PCR Pre-Mix 1 (h-Taq), without Band Doctor (Solgent h-Taq Buffer), with dye	4 x 1 ml
SHT03-M40h	2X PCR Pre-Mix 2 (h-Taq), with 1.0X Band Doctor (Solgent h-Taq Buffer), with dye	4 x 1 ml
SHT21-M40h	2X PCR Pre-Mix 3 (h-Taq) (KCl buffer system, 15 mM MgCl <sub>2</sub> ), with dye	4 x 1 ml
SHT23-M40h	2X PCR Pre-Mix 4 (h-Taq) (KCl buffer system, 15 mM MgCl <sub>2</sub> ), with dye	4 x 1 ml
SHT01-P096	Smart 2X Pre-Mix (h-Taq) Standard (Without Band Doctor), Reaction Volume 30 ul	96 tubes (8 strips x 12)
SHT01-P288	Smart 2X Pre-Mix (h-Taq) Standard (Without Band Doctor), Reaction Volume 30 ul	288 tubes (8 strips x 36)
SHT01-P576	Smart 2X Pre-Mix (h-Taq) Standard (Without Band Doctor), Reaction Volume 30 ul	576 tubes (8 strips x 72)
SHT21-B50h	10X EF-Taq Reaction Buffer	5 x 1 ml

## SolGent™ EF-Taq DNA polymerase

Cat. No	Product	size
SET06-R500	F-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.4 ml)	250 U
SET06-R25h	F-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.4 ml)	2,500 U (500 U x 5/box)
SET06-R50h	F-Taq DNA polymerase with 10mM dNTP Mix (each 10mM, 0.4 ml)	5,000 U (500 U x 5/box) x 2ea
SET21-B50h	10X F-Taq Reaction Buffer	5 x 1 ml

# Ordering Information

## DiaStar™ Taq DNA polymerase

Cat. No	Product	size
DT16-R500	DiaStar™ Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 0.4 ml)	500 U
DT16-R25h	DiaStar™ Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 2 ml)	2,500 U (500 U × 5/box)
DT16-R50h	DiaStar™ Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 4 ml)	5,000 U (500 U × 5box) × 2ea
DT22-B50h	10X DiaStar™ Taq Reaction Buffer	5 × 1 ml

## DiaStar™ EF-Taq DNA polymerase

Cat. No	Product	size
DT16-R250	DiaStar™ EF-Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 0.3 ml)	250 U
DT16-R500	DiaStar™ EF-Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 2 ml)	500 U
DT16-R25h	DiaStar™ EF-Taq DNA polymerase with 10mM dNTP Mix (each 10 mM, 4 ml)	2,500 U (500 U × 5/box)
DT22-B50h	10X DiaStar™ EF-Taq Reaction Buffer	5 × 1 ml

## SolGent™ 2x multiplex PCR premix

Cat. No	Product	size
SMP01-M25h	2X Multiplex PCR Pre-Mix (with dye)	100 rxns (0.5 ml × 5 ea)
SMO02-M25h	2X Multiplex PCR Pre-Mix (without dye)	100 rxns (0.5 ml × 5 ea)
SMP01-P096	2X Multiplex PCR Pre-Mix 8 strip type (with dye) PCR final volume 30 ul/rxn	96 rxns (8 strips × 12)
SMP02-P096	2X Multiplex PCR Pre-Mix 8 strip type (without dye) PCR final volume 30 ul/rxn	96 rxns (8 strips × 12)

## SolGent™ Real-Time PCR kit & premix

Cat. No	Product	size
SRH16-R250	Real-Time PCR Kit with 10 mM dNTP Mix (each 10 mM, 0.2 ml) / 25 mM MgCl <sub>2</sub> in buffer / w/o EvaGreen™	250 U
SRH16-R500	Real-Time PCR Kit with 10 mM dNTP Mix (each 10 mM, 0.4 ml) / 25 mM MgCl <sub>2</sub> in buffer / w/o EvaGreen™	500 U
SRH91-R250	Real-Time PCR Kit with 10 mM dNTP Mix (each 10 mM, 0.2 ml) / 25 mM MgCl <sub>2</sub> in buffer / w/o EvaGreen™ 500 ul	250 U
SRH91-R500	Real-Time PCR Kit with 10 mM dNTP Mix (each 10 mM, 0.4 ml) / 25 mM MgCl <sub>2</sub> in buffer / w/o EvaGreen™ 1 ml	500 U
SRH72-M40h	2X Real-Time PCR PreMix (25 mM MgCl <sub>2</sub> ) w/o EvaGreen™	4 × 1 ml
SRH71-M40h	2X Real-Time PCR PreMix (25 mM MgCl <sub>2</sub> ) w/o EvaGreen™ 500 ul	4 × 1 ml
SRH22-M55h	10X Real-Time PCR Reaction Buffer	5 × 1 ml

## DiaStar™ Multiplex PCR

Cat. No	Product	size
MDF01-M25h	DiaStar™ 2X Multiplex PCR Premix	100 rxn (0.5 ml × 5 ea)
MDF01-P096	DiaStar™ 2X Multiplex PCR Premix	96 tubes (8 strip tube × 12)
MDF02-M25h	DiaStar™ 2X Multiplex PCR Premix (without dye)	100 rxn (0.5 ml × 5 ea)
MDF02-P096	DiaStar™ 2X Multiplex PCR Premix (without dye)	96 tubes (8 strip tube × 12)
DD06-R250	DiaStar™ Fh-Taq DNA Polymerase (DNA Free) dNTP (10 mM each, 0.2 ml)	250 U
DD06-R10h	DiaStar™ Fh-Taq DNA Polymerase (DNA Free) dNTP (10 mM each, 0.8 ml)	1,000 U (250 U × 4 boxes)

## DiaStar™ RT kit

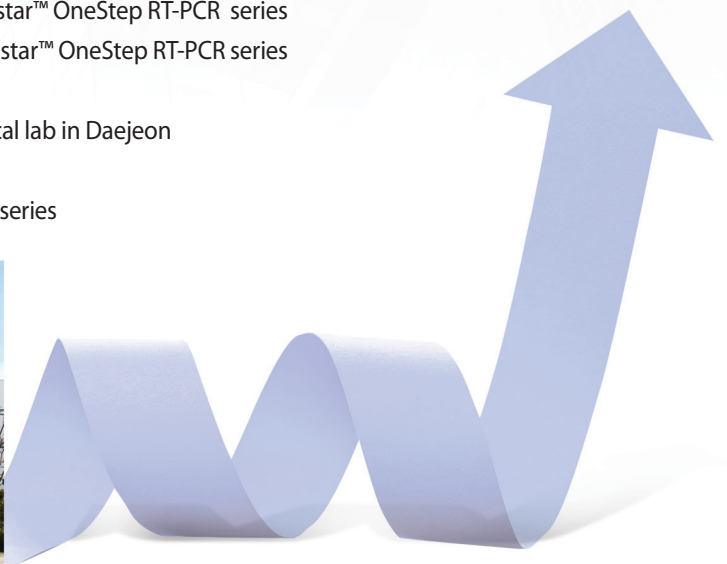
Cat. No	Product	size
DR12-R10k	DiaStar™ RT Kit (RNase H-), RTase, buffer each 10 mM dNTP, DTT, RNase Inhibitor	10,000 U
DR13-R10k	DiaStar™ RT Kit (RNase H-), RTase, buffer each 10 mM dNTP, DTT	10,000 U
DR18-B50h	5X DiaStar™ RT reaction buffer	5 × 1 ml
SORS1-E20h	RNase Inhibitor	2,000 U (40 U/ul)
SORS1-E10k	RNase Inhibitor	10,000 U (40 U/ul)

## DiaStar™ OneStep RT-PCR

Cat. No	Product	size
DR61-K050	DiaStar™ OneStep RT-PCR Kit, Enzyme mixture, buffer 5X Band Doctor™, each 10 mM dNTP	50 rxns
DR61-K100	DiaStar™ OneStep RT-PCR Kit, Enzyme mixture, buffer 5X Band Doctor™, each 10 mM dNTP	100 rxns
DR31-P096	DiaStar™ 2X OneStep RT-PCR premix	96 T
DR31-M10h	DiaStar™ 2X OneStep RT-PCR premix	1 ml
DR31-50h	DiaStar™ 2X OneStep RT-PCR premix	1 ml × 5
SCP20-P096	DiaStar™ OneStep RT-PCR premix - PIV1,2,3,RSV-A,B	96 T
SCP21-P096	DiaStar™ OneStep RT-PCR premix - Human coronavirus 229E / OC43	96 T
SCP22-P096	DiaStar™ OneStep RT-PCR premix - Human Rhinovirus	96 T
SCP23-P096	DiaStar™ OneStep RT-PCR premix - INFLU A/B	96 T
SCP24-P096	DiaStar™ RT-PCR premix - Adeno/Human Boca virus	96 T
SCP25-P096	DiaStar™ OneStep RT-PCR premix - INFLU A(H1/H3)	96 T

# History

- 2000 Established Solgent Co., LTD. In Daejeon, S. Korea
- 2000 Launched sequenChig and genotyping services
- 2001 Established Solgent attached molecular genomic lab
- 2002 Launched Solgent™ Pfu and Taq DNA polymerase
- 2002 Launched Solgent™ H-taq DNA polymerase
- 2003 Launched Solgent™ DNA purification kits
- 2003 Launched Solgent™ genomic DNA purification kits
- 2004 Launched Solgent™ RNA purification kits
- 2004 Established Solgent Young-Nam branch in Daegu
- 2005 Established Solgent capital area branch in Seoul
- 2005 Selected as high technology and company by Korea Technology Credit Guarantee Fund
- 2006 Relocated head office
- 2006 Established a strategic partnership with SNP Genetics Co., LTD
- 2006 Provided Solgent™ Taq DNA polymerase
- 2007 Obtained ISO9001 : 2008
- 2007 Approved Pinitol® as functional materials for control of blood glucose by FDA
- 2008 Launched Pinitol®
- 2008 Acknowledged as a 'Venture Company' by Korea Finance Corporation
- 2008 Selection Inno-Biz venture company by Small & Medium Business Administration
- 2008 Launched Diastar™ Taq DNA polymerase series
- 2008 Established a strategic partnership with Seegene Inc.
- 2008 Provided Solgent™ multiplex PCR pre-mix for diagnostic kit to Seegene
- 2008 Established a strategic partnership with Goodgene Co., LTD.
- 2008 Provided Solgent™ multiplex PCR pre-mix for diagnostic kit to Goodgene
- 2008 Established a strategic partnership with cogene co., LTD.
- 2008 Provided Solgent™ multiplex PCR pre-mix for diagnostic kits to Cogene
- 2009 Launched diagnosis business
- 2009 Contracted to supply 7 species RSV diagnosis kits to Korea Centers for Disease Control and Prevention
- 2009 Launched Diastar™ RT-PCR kit series and Diastar™ OneStep RT-PCR series
- 2009 Provided Solgent™ Real-time PCR kit and Diastar™ OneStep RT-PCR series
- 2010 Merged Mirgen
- 2010 Established production facility and biomedical lab in Daejeon
- 2011 Obtained ISO13485 : 2003
- 2011 Launched KiaPlex™ Molecular Diagnostic kit series





#### Headquarters

3F, 32 Techno 6-ro, Yuseong-gu, Deajeon, 305-509, Korea  
TEL: +82-42-863-5685 / FAX: +82-42-936-5695  
[www.Solgent.com](http://www.Solgent.com) / [global@solgent.com](mailto:global@solgent.com)

#### SolGent USA, LLC

6340 Sugarloaf Parkway Suite 200, Duluth, GA 30097  
TEL: +1-404-566-4528 (ext.1257) / FAX: +1-404-566-4529  
E-mail: [harrykim.us@solgent.com](mailto:harrykim.us@solgent.com) / [jennykim.us@solgent.com](mailto:jennykim.us@solgent.com)