Related Products

Product Group	Cat #	Size	PCR Instrument
First strand cDNA Synthesis			
CellScript cDNA Master Mix	CDS -50 CDS-100 CDS-200 CDS-400	50Rxn 100 Rxn 200 Rxn 400 Rxn	All Machines
SybrGreen realtime PCR Master Mix (One Step and Two Steps)			
QGreen (no ROX) Master Mix QGreenBlue (Low ROX) Master Mix CellScript RT-QGreen Master Mix CellScript (Low ROX) RT-QGreenBlue Master Mix	QG-05 QBLR-05 RTQG-05 RTQBLR-05	5ml	BioRad: CFX-96, FX-384, MJ Opticon, Option2, Chromo4, MiniOpticon Qiagen: Roto-Gene Q, Roto-Gene3000, Roto-Gene 6000 Eppendorf: Mastercycler realplex Illumina: Eco RealTime PCR System Roche: LIghtCycler 480, LightCycler 2.0
QGreen (Low ROX) Master Mix QGreenBlue (Low ROX) Master Mix CellScript RT-QGreen Master Mix CellScript (Low ROX) RT-QGreenBlue Master Mix	QGLR-05 QBLR-05 RTQG-05 RTQBLR-05	5ml	ABI: 7500, 7500 Fast, QuantStudio series, Stratagene: MX4000P, MX3000P, MX3005P
QGreen (High ROX) Master Mix QGreenBlue (High ROX) Master Mix CellScript RT-QGreen Master Mix CellScript (High ROX) RT-QGreenBlue Master Mix	QGHR-05 QBHR-05 RTQG-05 RTQBHR-05	5ml	ABI: 5700, 7000, 7300, 7700, 7900, 7900HT, 7900HT Fast, StepOne, StepOne plus
Taqman probe realtime PCR Master Mix (One Step and Two Steps)			
QPlex RT-qPCR Master Mix	QP-05	5ml	All Machines (For Multiplex TaqMan assay)
QRTPlex RT-qPCR Master Mix	RTQP-01	1ml	All Machines (For Multiplex TaqMan assay)

CellSafe

SafeDry™ cDNA Premix

Instruction Manual

Cat. No. LCDS-96, LCDS-480

All-In-One 5X 1st Strand cDNA Synthesis MasterMix Instruction Manual *Ver.3.0*

SafeDry ™ cDNA Premix

Product Descriptions

The Lycopheilized All-In-One 1st Strand cDNA Synthesis Premix is an optimized Premix that includes all reagents for the 1st cDNA synthesis, except for RNA. Available in freeze drying form and includes MMLV Reverse Transcriptase (RTase), Ribonuclease Inhibitor, dNTP and Oligo (dT) and Random Primers required for cDNA synthesis.

Primer Information

Oligos (dT) are limited to reaction to RNA templates with mRNA or 3'-Poly (A) tiles because they are annealed on the 3'-Poly (A) tail of the mRNA. The random primers perform ananialing in a non-specific area within the RNA template and can be used in any form of RNA as a template for the synthesis of cDNA. The literature has shown that the synthesis of first strand cDNA is more effective than using Oligo (dT) and random primers independently of the appropriate combination of oligo (dT) and random primers. Therefore, this product uses a mixture of oligo (dT) and random primers.

Storage and Stability

Store all components at -20°C. When all components are correctly stored and handled It's stable for a year

Materials Provided

Materials Provided	Quantity	
	LCDS-96	LCDS-480
	96 Rxn (20ul Reaction)	480 Rxn (20ul Reaction)
SafeDry cDNA Premix	96 Rxn	480 Rxn

SafeDry ™ cDNA Premix Protocol

Preparing for cDNA Synthesis Reaction

Reversal response should be performed in an environment without RNase, and clean pipettes and filter tips are recommended.

1. Place a tube containing Lyophilized All-In-One 1st Strand cDNA synthesis Premix on the ice.
2. Prepare the following response mixture in a tube on ice:

Step	Reaction components	cDNA Synthesis	No RT Control
1	Nuclease free Water	20-X ul (volume of RNA template)	20 – X ul (volume of RNA)
2	cDNA Synthesis Premix	0	0
3	RTase inactivation	No	Incubate for 2 min at 95℃ and chilling on ice.
4	Template RNA	X ul (≤5μg Total RNA or poly(A) + mRNA)	X ul (≤5μg Total RNA or poly(A) + mRNA)
	Total	20ul	20ul

* No RT Control reaction (reaction to verify the presence of DNA contained in RNA) – the reaction must be performed before adding an RNA template.

3. Mix the above ingredients well, briefly centrifugation, and then react to the mixture under the following conditions:

Tm	Time
25℃	5 min
42℃	15 min for qPCR 15~30 min for PCR
85℃	2min
4℃	Optional

4. The newly synthesized cDNA can be used directly for qPCR or PCR reaction or can be stored for a long time at -20°C.

General Notes

1. Both mRNA and total RNA can be used for first-standard cDNA synthesis, but the use of mRNA alone can result in higher yield and improved purity of cDNA for the final product.
2. RNA samples should not contain genomic DNA.
3. After cDNA synthesis is completed, use *E. coli* RNaseH to remove the complementary RNA, if necessary.