

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	QG-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
QGreenBlue (Low ROX) Master Mix	QBLR-05		
CellScript RT-QGreen Master Mix	RTQG-05		
CellScript (Low ROX) RT-QGreenBlue Master Mix	RTQBLR-05		
QGreen (Low ROX) Master Mix	QGLR-05	5ml	ABI: 7500, 7500 Fast, QuantStudio series, Stratagene: MX4000P, MX3000P, MX3005P
QGreenBlue (Low ROX) Master Mix	QBLR-05		
CellScript RT-QGreen Master Mix	RTQG-05		
CellScript (Low ROX) RT-QGreenBlue Master Mix	RTQBLR-05		
QGreen (High ROX) Master Mix	QGHR-05	5ml	ABI: 5700, 7000, 7300, 7700, 7900, 7900HT, 7900HT Fast, StepOne, StepOne plus
QGreenBlue (High ROX) Master Mix	QBHR-05		
CellScript RT-QGreen Master Mix	RTQG-05		
CellScript (High ROX) RT-QGreenBlue Master Mix	RTQBHR-05		
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)
QRT Plex RT-qPCR Master Mix	RTQP-01	1ml	All Machines (For Multiplex TaqMan assay)

CellScript™ cDNA Plus Master Mix

Instruction Manual

Cat. No. CDSP-50, CDSP-100
CDSP-200, CDSP-400

Research Use Only

CellScript™ cDNA Plus Master Mix

Product Descriptions

5X cDNA Plus MasterMix is an optimized MasterMix formulation including all the reagents necessary for first-strand cDNA synthesis, except for RNAs. This 5X concentrated reaction MasterMix contains MMLV Reverse Transcriptase (RTase), Ribonuclease Inhibitor, dNTPs and an optimized ratio of Oligo(dT)s and Random Primers.

Note

Note: Upon completion of the first-strand cDNA synthesis, the cDNA product can be directly applied as a template in a standard PCR/qPCR.

Primer Information

Oligo(dT)s are oligonucleotides that anneal to the 3'-Poly(A) tail of mRNAs. The utility of Oligo(dT) is restricted to mRNA or total RNA templates with 3'-Poly(A) tails. Random Primers anneal at non-specific sites within RNA template(s), they can be used for all forms of RNA as template for cDNA synthesis.

Storage and Stability

Store all components at -20°C. All components are stable for 1 year from the date of shipment when stored and handled properly.

Materials Provided

Materials Provided	Quantity			
	CDSP-50	CDSP-100	CDSP-200	CDSP-400
	50 Rxn	100 Rxn	200 Rxn	400 Rxn
All-In-One 5X cDNA Plus MasterMix	200ul	400ul	800ul	1.6ml
Nuclease free Water	1ml	2ml	4ml	7ml

CellScript™ cDNA Plus Master Mix Protocol

Preparing for cDNA Synthesis Reaction

Reverse transcription reactions should be conducted in an RNase-free environment. The use of clean pipets and filter tips are recommended.

1. Thaw RNA templates and the **All-In-One 5X cDNA Plus MasterMix** is on ice. Mix solutions gently but thoroughly.
2. Prepare the following reaction mixture in a PCR tube on ice:

Step	Components	cDNA Synthesis Reaction (10ul Reaction)	No RT Control Reaction (10ul Reaction)
1	All-In-One 5X cDNA Plus Master Mix	4µl	4µl
2	Nuclease free Water	16µl – Xµl (volume of RNA)	16µl – Xµl (volume of RNA)
3	RTase inactivation	No	Incubate for 1 min at 95°C and chilling on ice.
4	Template RNA	X ul (≤1µg Total RNA or 10ng poly(A) + mRNA)	X ul (≤1µg Total RNA or 10ng poly(A) + mRNA)
	Total	20µl*	20µl*

* In order to synthesize the larger amount of cDNA, the reaction volume could be increased. ex) 20µl, 50µl. In that case, larger amounts of RNA may be added in proportion to 20µl reaction.

3. Mix the components well and collect by brief centrifugation. Incubate the mixture in the following reaction conditions.

Temperature	Time
25°C	5 min
42°C	15 min for qPCR 30 ~ 60 min for PCR
85°C	5 sec
4°C	Optional

4. The newly synthesized first-strand cDNA is ready for immediate downstream applications, or for long-term storage at -20°C.

General Notes

1. Both poly(A) + mRNA and total RNA can be used for first-strand cDNA synthesis, but poly(A) + mRNA may give higher yields and improved purity of final products.
2. RNA samples must be free of genomic DNA contamination.
3. To remove RNA complementary to the cDNA, add 1µl (2 U) of *E. coli* RNase H and incubate

at 37°C for 20 mins.