

HiSense™ cDNA Synthesis Premix

Cat. No. LCDS-96, LCDS-480

1. Product Information

Introduction

HiSense™ cDNA Synthesis Premix is designed to perform a PCR reaction easily by dispensing HiSense™ cDNA Synthesis Master Mix into an 8-strip tube. The Master Mix contains all the reagents necessary for first-strand cDNA synthesis, excluding RNAs.

This product contains *M-MLV (Moloney Murine Leukemia Virus)* reverse transcriptase (RTase), ribonuclease inhibitor, dNTPs and an optimized ratio of Oligo (dT)s and random primers.

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.

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 1 µl (2 U) of *E. coli* RNase H and incubate at 37°C for 20 mins.
- 4) Upon completion of the first-strand cDNA synthesis, the cDNA product can be directly applied as a template in a standard PCR/qPCR.

2. Contents and Storage

Materials Provided

Label	LCDS-96	LCDS-480
2X cDNA Synthesis Premix	8-Strip × 12ea	8-Strip × 60ea

Storage

Store at -20°C

Check the label on the product for expiration date.

3. Test Protocol

Reaction mixture (for 20µl reaction)

Reaction components	Volume
2X cDNA Synthesis Premix	10 µl
Template RNA*	Variable
Nuclease free water	up to 20 µl
Total volume	20 µl

*The scale of the reverse-transcription reaction can be increased as necessary. Reverse transcription of as much as 500 ng of total RNA is possible with 20 µl of reaction solution.

After tapping the 8-strip tube containing the above reaction mixture, briefly spin-down it.

PCR reaction condition

Steps	Temp(°C)	Time
Primer extension	25	5 min
cDNA synthesis*	42	15 min
Reaction Termination	85	5 sec

*The reverse transcription time can be increased by 15 to 60 minutes or more, depending on the size of the template RNA.