

# Easy™ cDNA Synthesis Kit(New)

Cat A101161 (50 Reactions)
Store at -20°C

### Contents

Component	Volume
Buffer-Mix (2x)	500 μL
Enzyme Mix	100 μL
DEPC-treated water	500 μL
cDNA Con. Primer Mix(B2M)	50μL

### Description

Easy cDNA Synthesis kit contains all necessary components for conversion of total RNA or mRNA to the single stranded cDNA. The 2X Buffer mix solutions contains, RTbuffer, 1mMdNTP mixture, 8mM MgCl2,Oligo d(t)16, Randomhexamer and stabilizer. Enzyme mix contains thermostable Hminus MMLV, RNase Inhibitor and stabilizer.

#### Features

- Easy protocol& Minimum pipetting steps
- RNase minus MMLV enzyme
- Long mRNA synthesis
- High temperature reaction to destabilize RNA secondary structures

# General Reaction Protocol (first strand cDNA synthesis):

1- Mix the template RNA (total RNA <u>or</u>Poly(A)mRNA) and other kit components in RNase-free tube as below table.

DEPC-treated water	Up to 20 μL
Enzyme Mix	2
Buffer-Mix (2x)	10
Template RNA 1 ng~5 μg	XμL

- 2- Mix the above mixture by quick vortex.
- 3- Incubate 10 min at 25 °C.
- 4. Incubate 60 min at 47°C.
- 5. Stop the reaction by heating at 85°Cfor 5 minutes. Chill on the ice or at 4°C.

**Note:**To perform PCR, you can add the finished RT reaction up to 1/5 of the final PCR volume.

### cDNAControl PCR Reaction

- 1- Prepare a reaction mix according to the table.
- 2- For negative tube use 2µl of PCR grade water. The

Final volume	20 μL
PCR Grade Water	7
cDNA	2
cDNA Control primer mix	1
Taq 2X Premix	10
Component	Vol (μL)

final volume in each PCR reaction tubes is 20µl. Note: It is recommended that all of the PCR components be premixed in a sufficient quantity for daily needs and then dispensed into the individual reaction tubes.

### Amplification protocol

Cycle	Time	Temp °C
1	4 Min	95
	30 Sec	94
35	30 Sec	57
	30 Sec	72
1	5 Min	72

# Agarose gel Electrophoresis

Run the total 5-7  $\mu$ L of PCR products alongside 3 $\mu$ L DNA marker on a 2% agarose gel containing Green viewer DNA safe stain.

The B2M primers amplify a band of approximately 230bp from human, mouse and rat *B2M* cDNA.

## **Disclaimers and Addresses**

This product is for research use only and should only be used by trained professionals.

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