

# X-RT-Professional- Reverse Transcription i.e. cDNA synthesis kit (50 rxns of 25 µl each)

Cat No.110072

DATA-SHEET

## Reverse Transcription

We are excited to launch our ready to use RT i.e. cDNA synthesis kits which will help the researcher to save their valuable time as well as will offer, a stabilized & optimized system to Carry out cDNA synthesis faster & in large scale without worrying about the reagents mis-match. This kit is designed to offer you an optimized platform to carry out cDNA synthesis without searching for or matching the reagents. The kit offers ease of use & lesser number of steps as compared to conventional methods.

The RT Buffer mix contains all the necessary reagents i.e. M-MuLV, dNTP's, RT Buffer, Mg at a 1x Conc. of 1.5 mM, required for cDNA synthesis of RNA except for the Random hexamer primers which are provided separately. This is done due to the fact that those customers who wish to use gene specific primers can also use this RT system. Suitable for routine cDNA synthesis for high workloads. Start up customers, for high throughput laboratories.

### CONTENTS OF THE PACK :

X- RT- professional RT Premix – <b>2.5X</b> (1.5 mM Final Mg. Conc.)	500 µl	- 1 Vial (for 50 reactions of 25µl)
Random Hexamer primers (10 pmoles/µl)	50 µl	- 1 Vial
25 mM MgCl <sub>2</sub>	0.5 ml	- 1 Vial
Mol. Grade water	1.0 ml	- 1 Vial

**MgCl<sub>2</sub> Solution** : 0.5 ml of 25mM MgCl<sub>2</sub> Solution (In case higher Conc. of Mg is to be used)

**Mol grade water:** Water is provided in 1.0 ml quantity, which is RNase and DNase free. It is advisable to aliquot the Mol. Grade water.

**Storage Conditions** : Recommended storage temperature is -20 °C.

**NOTE:** It is not advisable to Freeze thaw the premix time & again. If the premix is to be used in several batches therefore, it is advisable to prepare aliquots & store at -20 °C.

### DILUTION PROTOCOL FOR cDNA SYNTHESIS :

Component	25 µl reaction Volume	
	Volume	Final Conc.
X- RT- professional RT Premix – <b>2.5X</b>	10 µl	1 X
Random Hexamer primers	1µl	10 pmoles/rxn
Mg. (if higher Conc. is required)	Variable	Variable.
Template RNA	Variable	10pg-1 µg
Sterile Deionized water	To make Final Volume Up to 25 µl	----

1. It is advisable to use 10µl -13µl of extracted template RNA in case low yield is expected.
2. Additional MgCl<sub>2</sub> Vial is supplied in case the Mg Conc. needs to be increased from 1.5 mM MgCl<sub>2</sub>



Manufactured and Marketed By :

**GENOME DIAGNOSTICS PVT. LTD.,**  
(An ISO 13485:2003 & ISO 9001:2000 Certified Company)

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Version : X-RT04/001

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## **Suggested Protocol**

1. **Incubate the mixture** at 42°C for 30 to 120 min. The time of reaction depends on the length of cDNA; 30min is sufficient for cDNA in the range of 500bp in length, 120 min for 1.5 kb respectively. The temperature of the reaction depends on the structural features of RNA. Use increased temperature (up to 50°C) for the highly structured RNA. The optimal temperature and reaction time should be adjusted for each particular RNA.
2. **Heat the mixture** for 10min at 70°C to inactivate the M-MuLV Reverse Transcriptase.
3. **Use the mixture** for PCR and for other applications or store at -20°C for future usage.

### **AVIALABLE PACK SIZE :**

<b>Cat. No.</b>	<b>PRODUCT</b>	<b>Pack Size</b>
110071	X-RT-Professional cDNA Synthesis kit.	25 rxns
110072	X-RT-Professional cDNA Synthesis kit.	50 rxns
110073	X-RT-Professional cDNA Synthesis kit.	100 rxns
110074	X-RT-Professional cDNA Synthesis kit.	500 rxns
110075	X-RT-Professional cDNA Synthesis kit.	1000 rxns
110076	X-RT-Professional cDNA Synthesis kit.	10000 rxns

**NOTE :** For research use only. Not for use in Diagnostic or therapeutic procedures.  
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