

# Super-RT-Professional- Reverse Transcription i.e. cDNA synthesis kit (100 rxns of 25 µl each)

Cat No.110083

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. Super-RT-Professional kit is designed for RNA templates, which are difficult targets & do not yield good quality cDNA synthesis & 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 Super RT Buffer mix contains all the necessary reagents i.e. Blended 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.

### CONTENTS OF THE PACK :

Super-RT-professional RT Premix – 2.5X (1.5 mM Final Mg. Conc.)	1 ml	- 1 Vial (for 100 rxns of 25µl)
Random Hexamer primers (10 pmoles/µl)	100 µl	- 1 Vial
25 mM MgCl <sub>2</sub>	1.5 ml	- 1 Vial
Mol. Grade water	1.5 ml	- 1 Vial

**MgCl<sub>2</sub> Solution** : 1.5 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 1.5 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.
Super - RT- professional RT Premix – 2.5X	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 : Sup-RT04/001

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## Suggested Protocol

1. **Incubate the mixture** at 50°C for 20 to 60 min. The time of reaction depends on the length of cDNA; 20min is sufficient for cDNA in the range of 500bp in length, 60 min for 1.5 kb respectively. The temperature of the reaction depends on the structural features of RNA. Use increased temperature (up to 55°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 RT Enzymes.

Use the mixture for PCR and for other applications or store at -20°C for future usage.

### AVIALABLE PACK SIZE :

Cat. No.	PRODUCT	Pack Size
110081	Super-RT-Professional cDNA Synthesis kit	25 rxns
110082	Super-RT-Professional cDNA Synthesis kit	50 rxns
110083	Super-RT-Professional cDNA Synthesis kit	100 rxns
110084	Super-RT-Professional cDNA Synthesis kit	500 rxns
110085	Super-RT-Professional cDNA Synthesis kit	1000 rxns
110086	Super-RT-Professional cDNA Synthesis kit	10000 rxns

**NOTE :** For research use only. Not for use in Diagnostic or therapeutic procedures.  
Genome Diagnostics Pvt. Ltd., shall not in any event be liable for incidental or special damage of any kind resulting from any use except on applications.



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