AbScript 3.0 Reverse Transcriptase

Catalogue No.	Pack Size	Concentration
SP-RT-001-2000U	**2000U**	**200U/ul**
SP-RT-001-10K	**10000U**	**200U/ul**
SP-RT-001-40K	**4 x 10000U**	**200U/ul**

Product Description

AbScript™ 3.0 Reverse Transcriptase is an enhanced M-MLV RNA-dependent DNA polymerase capable of high-quality long cDNA synthesis (> 9kDa), increased thermostability and reduced RNase activity. Synthesis of cDNA is possible at temperatures up to 55℃.

Product Contents

Catalog No.	Component Name	Size
SP-RT-001-2000U	AbScript 3.0 Reverse Transcriptase	2000U
	5x AbScript Buffer	1 x 1ml
	0.1M DTT	1 x 0.5ml
SP-RT-001-10K	AbScript 3.0 Reverse Transcriptase	10000U
	5x AbScript Buffer	1 x 1ml
	0.1M DTT	1 x 0.5ml
SP-RT-001-40K	AbScript 3.0 Reverse Transcriptase	4 X 10000U
	5x AbScript Buffer	4 x 1ml
	0.1M DTT	4 x 0.5ml

Storage Condition and Stability

The enzyme and undiluted buffer solutions are stable when stored at -20℃ for 1 year.

Unit Definition

One unit is defined as the amount of enzyme that will incorporate 1 nmol of dTTP in 10 minutes at 37℃, using poly(A) and oligo(dT) as the template and primer, respectively.

Product Application

RT-PCR, cDNA synthesis, qRT-PCR

Features	Specification
Concentration	200U/ul
Recombinant Enzyme	Yes, an RNA dependent DNA polymerase
Enzyme Reaction	Reverse Transcription; first strand synthesis
Sample/Target	RNA
Included dNTPs	No
Reaction Condition	At 1x concentration the reaction buffer assures optimal activity for AbScript 3.0 Reverse transcriptase

Product Suggested Procedure

1. Thaw the reagents and store on ice. Briefly vortex and centrifuge all reagents before setting up the reactions.
2. In a sterile reaction tube on ice, add the following components listed below:

Components	Volume	Concentration
Primer	1uL	50-250ng of random primers; or 2 pmol of gene-specific primers
RNA	X uL	10pg- 5ug of total RNA or 10pg – 500ng of mRNA
10mM PCR Grade Nucleotide Mix	1uL	-
Water, PCR Grade	To make a final vol of 13ul	-

3. Mix and centrifuge briefly. Heat 65℃ for 5 minutes. *Optional: If using random primers, incubate tube at 25℃ for 5 minutes before proceeding with incubation at 50℃ for 30-60 minutes. Additionally, increase the reaction temperature to 55℃ for gene specific primers.*
4. Incubate on ice for at least 1 minute.
5. After incubation, add the following components listed below to a **final volume of 20ul**:

Components	Volume	Working concentration
5x AbScript Buffer	4uL	1x
0.1M DTT	1 uL	500 uM
RNase Inhibitor	1 uL	40U
AbScript 3.0 Reverse Transcriptase	1 ul	200U. Adjust up to 2uL (400U) if increased yield is needed.

6. Incubate at 50℃ for 30-60 minutes.
7. Denature AbScript 2.0 Reverse Transcriptase by heating at 70℃ for 15 minutes.