

[Cat. No.] Please refer to the **Ordering Information**

Introduction

AccuPower[®] RT-PCR PreMix utilizes one-step RT-PCR performing cDNA synthesis and PCR in a single step, in a single tube. It can provide reduced possibility of cross-contamination and errors. This product contains vacuum-dried components including *M-MLV* Reverse Transcriptase, reaction buffer, RNase inhibitor, *Top* DNA Polymerase, stabilizer, and dNTPs. It simplifies preparation of reverse transcription reaction mixture and PCR mixture by adding template RNA and primers without any extra process. Furthermore, by using the RNase H⁺ of *M-MLV* Reverse Transcriptase, template RNA is removed after the cDNA synthesis to minimize the effect of residual template RNA in PCR. After the reaction, samples can be applied directly on agarose gel for analysis due to included tracking dye.

Applications

- First-strand synthesis of cDNA from RNA molecules (RT)
- RT-PCR
- cDNA library construction
- Gene expression analysis

Features & Benefits

- Ease-of-use: Reactants are individually packaged in each of the PCR tubes, it allows any user simply perform cDNA synthesis and PCR in one tube by adding template RNA and its specific primers.
- Stability: Included stabilizer and RNase inhibitor provides high resistance to degradation.
- Reproducibility: Mass production under ISO 9001 quality system allows minimized deviation between lots and reproducible results in replicated tests performed under same conditions and variation.

Composition

Composition	Concentration
<i>M-MLV</i> Reverse Transcriptase	200 U
5X Reaction buffer	1X
DTT	0.25 mM
dNTPs (dATP, dCTP, dGTP, dTTP)	Each 250 µM
RNase inhibitor	1 U
<i>Top</i> DNA Polymerase	1 U
Stabilizer and tracking dye	1X

Specifications

<i>Top</i> DNA Polymerase	
5' to 3' exonuclease activity	No
3' to 5' exonuclease activity	No
3'-A overhang	Yes
Fragment size	Up to 5 kb

Storage

Store at -20°C. If stored in the recommended temperature, this product will be stable until the expiration date printed out on the label.

Online Resources



Korean



English

Visit our **product page** for additional information and protocols

Ordering Information

Description	Cat. No.
0.2 ml thin-wall 8-tube strips with attached cap	96 tubes 20 µl/rxn K-2055
	50 µl/rxn K-2057
480 tubes	20 µl/rxn K-2055-B
	50 µl/rxn K-2057-B
0.5 ml thin-wall tubes with attached cap	100 tubes 50 µl/rxn K-2056
	flat plate 10 µl/rxn K-2262-1
thin-wall 96-well	20 µl/rxn K-2262-4
	full-skirted plate 10 µl/rxn K-2262-2
	20 µl/rxn K-2262-5
	semi-skirted plate 10 µl/rxn K-2262-3
thin-wall 384-well	20 µl/rxn K-2262-6
	5 µl/rxn K-2084-1
	10 µl/rxn K-2084-2
	20 µl/rxn K-2084-3

Notice

BIONEER corporation reserves the right to make corrections, modifications, improvements and other changes to its products, services, specifications or product descriptions at any time without notice.

Explanation of Symbols

Batch Code	Biological Risks	Catalog Number	Caution
Consult Instructions For Use	Contains Sufficient for <n> tests	Do not Re-use	Manufacturer
Research Use Only	Temperature Limitation	Use-by Date	

Experimental Procedures

Steps		Procedure Details																												
1	 Preparation of reaction mixture	<p>1. Add template RNA, primers and nuclease-free water into <i>AccuPower®</i> RT-PCR PreMix tubes to make a total volume of 20 µl or 50 µl. Do not include the dried pellet.</p> <ul style="list-style-type: none"> Amount of template RNA and primer <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Components</th> <th>20 µl reaction</th> <th>50 µl reaction</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center;">Template RNA</td> <td style="text-align: center;">Total RNA</td> <td style="text-align: center;">0.5-1 µg</td> <td style="text-align: center;">1-2 µg</td> </tr> <tr> <td style="text-align: center;">Poly(A) RNA</td> <td style="text-align: center;">0.05-0.1 µg</td> <td style="text-align: center;">0.1-0.2 µg</td> </tr> <tr> <td style="text-align: center;">Primers</td> <td style="text-align: center;">Gene specific primer</td> <td style="text-align: center;">10-30 pmol</td> <td style="text-align: center;">20-50 pmol</td> </tr> </tbody> </table> <p>2. Dissolve the vacuum-dried pellet by vortexing or pipetting, and briefly spin down.</p>	Components		20 µl reaction	50 µl reaction	Template RNA	Total RNA	0.5-1 µg	1-2 µg	Poly(A) RNA	0.05-0.1 µg	0.1-0.2 µg	Primers	Gene specific primer	10-30 pmol	20-50 pmol													
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3	 Analyze with gel electrophoresis	<p>4. After the reaction, maintain the reaction mixture at 4°C. The samples can be stored at -20°C until use.</p> <p>5. Load samples on agarose gel without adding a loading-dye mixture, and perform gel electrophoresis for analysis.</p>																												