

MBT073

AMV Reverse Transcriptase

Product Name	Product Code	Kit Packing
AMV Reverse Transcriptase	MBT073-100U	100 units
	MBT073-250U	250 units

Description:

AMV Reverse Transcriptase (Avian Myeloblastosis Virus Reverse Transcriptase) is an RNA-dependent DNA polymerase with a molecular weight of 157kDa. This enzyme can synthesize a complementary DNA strand initiating from a primer using either RNA (cDNA synthesis) or single-stranded DNA as template.

Features:

- Ultra pure recombinant protein
- Maintains the RNA and DNA-dependent DNA polymerase and RNase H activities
- RNase H activities can be regulated over a wide range of temperatures.
- Capable of synthesizing cDNA over a wide range of temperatures.

Applications:

- First strand synthesis of cDNA
- Synthesis of cDNA for cloning
- cDNA labeling
- Primer extension and RNA sequencing
- RT-PCR
- Dideoxy sequencing of DNA and RNA

Unit Definition:

1U is defined as amount of enzyme that is required to catalyze the incorporation of 1 nmoles of dTMP into acid-insoluble material in 10 minutes at 37°C using Poly(rA)-oligo·(dT)₁₂₋₁₈ as template-primer

Concentration: 20 units/μl supplied with 10X Reaction Buffer

Storage conditions: The AMV Reverse Transcriptase should be stored at -70°C. When stored under the recommended conditions, the product is stable for 18 months.

Thermal Inactivation: 80°C for 10 minutes

Optimum Temperature: 41°C - 45°C

General reaction Protocol:

1. Mix the template RNA and the primer in RNase-free tube.

NOTE: Concentration of template RNA and primer (20 µl reaction volume)

Template RNA	Total RNA	10 ng-5 µg
	Poly(A) ⁺ mRNA	5 ng-0.5 µg
Primer	Oligo (dT)	0.5 µg
	Random hexamer	0.2 µg
	Sequence specific Primer	15-20 pmole
Molecular Biology Grade Water for PCR	-	Upto 10 µl

2. Incubate the mixture at 70°C for 5 minutes and chill on ice.
3. Add 4 µl of 10X reaction buffer, 2 µl of 10mM dNTP mixture and 20 units of RNase inhibitor and RNase free (DEPC-treated) water upto 19 µl.
4. Incubate at 37°C for 5 minutes. If random primers are used, incubate at 25°C for 5 minutes.
5. Add 1 µl (20 units) of AMV Reverse Transcriptase.
6. Mix by gently pipetting up and down (total reaction volume 20 µl)
7. Incubate at 41°C - 45°C for 60 minutes.
8. Stop the reaction by heating at 80°C for 10 minutes. Chill on ice.

NOTE: To perform PCR, add the finished RT reaction upto 1/5th of final PCR volume.

Quality control:

Detected free of RNases, endonuclease and exonuclease activities.

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.



Consult instructions for use



Do not use if package is damaged



HiMedia Laboratories Pvt. Limited,
Reg. Off: 23 Vadhani Industrial Estate,
LBS Marg, Mumbai - 400086,
India Works: B/4-6, M.I.D.C., Dindori,
Nashik, India (or respective plant address)
Customer Care No: 022-6116 9797
www.himedialabs.com

PIMBT072_0/0818

MBT072-03

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

HiMedia Laboratories Pvt. Ltd. A-516, Swastik Disha Business Park, Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6147 1919 Email: techhelp@himedialabs.com Website: www.himedialabs.com