



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

AMV-Reverse Transcriptase from avian myeloblastosis virus

Catalog Number **R9376**

Storage Temperature –70 °C

CAS RN 9068-38-6

EC 2.7.7.49

Synonyms: Revertase; RNA-directed DNA polymerase

Product Description

AMV reverse transcriptase synthesizes DNA complementary (cDNA) to RNA templates. A DNA primer complementary to the RNA template and a divalent cation, either Mg^{2+} or Mn^{2+} , are required for initiation of transcription. This enzyme is commonly used to make cDNA from mRNA for eventual cloning or for use as probes.

The product is supplied in a solution containing 50% glycerol, 200 mM potassium phosphate, pH 7.2, 2.0 mM dithiothreitol, and 0.2% TRITON® X-100 with 10–100 units/ μ l. No RNase activity is detected.

Unit Definition: One unit incorporates 1 nmol of dTTP into TCA precipitable material in 10 minutes at 37 °C using polyadenylic acid as the template and oligo(dT)₁₂₋₁₈ as a primer. The activity is assayed in a reaction mixture containing 50 mM Tris-HCl, pH 8.3, 6.0 mM $MgCl_2$, 40 mM KCl, 4.0 mM dithiothreitol, 0.4 mM Poly (rA)-(dT)₍₁₂₋₁₈₎, 0.5 mM [³H]-TTP (10–20 cpm/pmole), and 2–5 units of enzyme.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The enzyme solution may be diluted with 10% glycerol, 10 mM potassium phosphate, pH 7.2, 2.0 mM dithiothreitol, and 0.2% TRITON X-100.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended.

References

1. Ausubel, F., et al. *Short Protocols in Molecular Biology*, 3rd ed. (New York, NY: 1995), 14.42-14.43.

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JB,TR,MAM 04/07-1

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