

HIV Reverse Transcriptase

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Human Immunodeficiency Virus (HIV) Reverse Transcriptase is an RNA directed DNA polymerase which can synthesize a complementary DNA strand initiating from a primer using either RNA or single-stranded DNA as a template.

Cat. No.	Size
E1373-01	500 units
E1373-02	2 500 units

Unit Definition:

One unit is the amount of enzyme required to incorporate 1 nmol of labeled dTTP into acid-insoluble material in 10 min at 37°C.

Storage Conditions:

Store at -20°C

Description:

- Provides an excellent target for evaluating antiviral agents or inhibitors (1,2).
- Catalyzes error-prone synthesis on DNA and RNA templates - ideal for introducing random mutations (3).

Storage Buffer:

20 mM potassium phosphate (pH 7.1), 1 mM dithiothreitol, 0.02% (v/v) Triton X-100 and 50% (v/v) glycerol.

Assay Conditions:

50 mM Tris-HCl (pH 8.6 at 22°C), 10 mM MgCl₂, 40 mM KCl, 0.5 mM [³H]dTTP and 0.4 mM poly(A)·(dT)₁₂₋₁₈. Incubation is at 37°C for 10 min in a reaction volume of 50 µl.

Quality Control:

All preparations are assayed for contaminating endonuclease and exonuclease activities.

References:

1. Hirsch, M. S., Kaplan, J. C. (1985) *Ann. Intern. Med.* 103, 750-755. Review.
2. Tisdale, M. et al (1989) *J. Antimicrob Chemother.* 23, 47- 54.
3. Williams, K. J., Loeb, L. A. (1992) *Curr. Top. Microbiol. Immunol.* 176, 80-165.