AMV Reverse Transcriptase

200 units Lot: 0151502 Exp: 2/17
10,000 U/ml Store at –20°C

Description: Avian Myeloblastosis Virus (AMV) Reverse Transcriptase is an RNA-directed DNA polymerase. This enzyme can synthesize a complementary DNA strand initiating from a primer using RNA (cDNA synthesis) or single-stranded DNA as a template (1-3).

Source: Avian Myeloblastosis Virus (AMV)

Applications:
- cDNA Synthesis
- RNA Sequencing
- RT-PCR

Unit Assay Conditions: 75 mM potassium acetate, 50 mM Tris-HCl (pH 8.3) 8 mM magnesium acetate, 0.5 mM [3H]-dTTP, 0.2 mM poly(rA)-oligo(dT)12-18 and 10 mM DTT.

Quality Assurance: AMV Reverse Transcriptase is tested for its ability to synthesize full length cDNAs from crude or purified RNA templates. Purified free of detectable levels of RNase, endonuclease and exonuclease activities, AMV Reverse Transcriptase is greater than 95% pure by SDS-Gel Electrophoresis.

Quality Control Assays
DNA Endonuclease Activity: Incubation of a 50 µl reaction containing 30 units of AMV Reverse Transcriptase with 1 µg φX174 RF I DNA for 4 hours at 37°C resulted in < 10% conversion to RF II as determined by agarose gel electrophoresis.

DNA Exonuclease Activity: Incubation of a 50 µl reaction containing 30 units of AMV Reverse Transcriptase with 1 µg of a mixture single and double-stranded [3H] DNA (200,000 cpm/µg) for 4 hours at 37°C released < 0.2% of the radioactivity.

RNSase Assay: Incubation of a 10 µl reaction containing 40 ng RNA transcript for 4 hours at 37°C resulted in no detectable degradation of the RNA as determined by agarose gel electrophoresis.

References: