M-MuLV Reverse Transcriptase (RNase H–)

4,000 units 200,000 U/ml Lot: 0021204
RECOMBINANT Store at –20°C Exp: 4/13

Description: M-MuLV Reverse Transcriptase (RNase H–) is a recombinant M-MuLV reverse transcriptase with reduced RNase H activity and increased thermostability. It can be used to synthesize first strand cDNA at higher temperatures than the wild type M-MuLV. The enzyme is active up to 50°C, providing higher specificity, higher yield of cDNA and more full-length cDNA product up to 12 kb.

Source: The gene encoding a mutant M-MuLV Reverse Transcriptase (RNase H–) is expressed in E. coli and purified to near homogeneity.

Supplied in: 20 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 0.01% (v/v) IGEPA® CA-630, 50% (v/v) glycerol

Reagents Supplied with Enzyme: 5X M-MuLV Reverse Transcriptase (RNase H–) Reaction Buffer, 10X DTT (0.1 M)

Reaction Conditions: 1X M-MuLV Reverse Transcriptase (RNase H–) Reaction Buffer, 10 mM DTT, 200 units M-MuLV (RNase H–), supplemented with 0.5 mM dNTPs (not included) and 0.01% (v/v) IGEPA® CA-630, 50% (v/v) glycerol

Quality Assurance: M-MuLV Reverse Transcriptase (RNase H–) is tested for its ability to synthesize a 9.2 kb cDNA product from total RNA by RT-PCR approach.

Quality Control Assays
16-Hour Incubation: A 50 µl reaction containing 1 µg of eX174 DNA and 100 units of M-MuLV Reverse Transcriptase (RNase H–) incubated for 16 hours at 37°C resulted in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

RNase Activity: Incubation of a 10 µl reaction containing 100 units of M-MuLV Reverse Transcriptase (RNase H–) with 40 ng of RNA transcripts for 2 hours at 37°C resulted in no detectable degradation of the RNA as determined by gel electrophoresis.

Protein Purity (SDS-PAGE): M-MuLV Reverse Transcriptase (RNase H–) is > 95% pure as determined by SDS PAGE analysis using Coomassie blue detection.

Heat Inactivation: 65°C for 20 minutes.

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References:

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