T7 RNA Polymerase

Catalog: # E-126
Lot: 1

Quantity Supplied: 1,000 ug in 1,000 ul storage buffer.
Concentration: 1.0 ug/ul

Enzyme Activity: 600 units/ul (600 units/ug)
Total units supplied: 600,000

Storage Buffer: 50 mM Tris-HCl, pH 8.0, 200 mM NaCl, 1.0 mM EDTA, 10 mM dithiothreitol, 0.10% Triton X-100, 25% glycerol.

Purity: Greater than 98% as determined by SDS-PAGE gel analysis.

Storage: -20 degrees C or lower. Storage at -30 degrees C or lower is preferable.

Description: T7 RNA polymerase catalyzes the transcription of DNA from dsDNA templates containing the T7 RNA polymerase promoter recognition sequence, using rNTPs substrates. The recommended 1X reaction buffer (not supplied) is 40 mM Tris-HCl, pH 8.0, 5 mM $MgCl_2$, 5 mM dithiothreitol, 2 mM spermidine, 0.5 mM each rNTP. Incubate at 37 degrees C. Inorganic pyrophosphatase (catalog E-108) may be added to the reaction, in order to hydrolyze the pyrophosphate released in the polymerase reaction.

Quality Control Tests
(1) Endonuclease contamination: None detected.
Incubation of 26 ug (15,600 units) with 15 ug of pUC19 supercoiled plasmid in 50 ul 50 mM Tris-HCl, pH 8.0, 5 mM $MgCl_2$, 5 mM dithiothreitol, at 37 °C for 2 hours resulted in no observable conversion of supercoiled plasmid to open circular form.
(2) Double Stranded Exonuclease: None detected.
Incubation of 26 ug (15,600 units) with 50 ug of a 20 base pair double stranded DNA ladder in 50 ul 50 mM Tris-HCl, pH 8.0, 5 mM $MgCl_2$, 5 mM dithiothreitol, at 37 °C for 3 hours resulted in no observable degradation of any of the bands of the 20 base pair DNA ladder.
(3) SDS-PAGE
SDS-PAGE analysis followed by coomassie blue staining shows only one major band. Purity is estimated at greater than 98%. This product does not contain bovine serum albumin, or any other protein additives.

Made in USA by Edward Hyman

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