**E. coli Poly(A) Polymerase**

**M0276S**

100 units 5,000 U/ml Lot: 0101309
RECOMBINANT Store at –20°C Exp: 9/15

**Description:** E. coli Poly(A) Polymerase catalyzes the template independent addition of AMP from ATP to the 3’ end of RNA.

**Source:** An E. coli strain that carries the cloned Poly(A) Polymerase gene from E. coli (1).

**Applications:**
- Labeling of RNA with ATP or cordycepin
- Poly(A) tailing of RNA for cloning or affinity purification
- Enhances translation of RNA transferred into eukaryotic cells

**Supplied in:** 20 mM Tris-HCl (pH 7.5), 300 mM NaCl, 1 mM EDTA, 1 mM DTT, 0.1% Triton X-100 and 50% glycerol.

**Reagents Supplied with Enzyme:**
- 10X E. coli Poly(A) Polymerase Reaction Buffer
- 10 mM ATP

**Reaction Conditions:** 1X E. coli Poly(A) Polymerase Reaction Buffer and 1 mM ATP. Incubate at 37°C.

**E. coli Poly(A) Polymerase Reaction Buffer:**
- 250 mM NaCl
- 50 mM Tris-HCl
- 10 mM MgCl₂
- pH 7.9 @ 25°C

**Quality Assurance:** E. coli Poly(A) Polymerase contains no detectable DNAses, RNAases and phosphatases. The purified protein contains no detectable DNA or RNA as determined by ethidium staining of an agarose gel.

**Quality Control Assays**

**RNase Assay:** Incubation of a 10 µl reaction containing 5 units of E. coli Poly(A) Polymerase with 40 ng of RNA transcript for 2 hours at 37°C resulted in no detectable degradation of the RNA as determined by gel electrophoresis.

**DNA Exonuclease Activity:** Incubation of a 50 µl reaction containing 10 units of E. coli Poly(A) Polymerase with 1 µg of a mixture of single and double-stranded 3H E. coli DNA for 3 hours at 37°C resulted in < 0.1% of the total radioactivity.

**DNA Endonuclease Activity:** Incubation of a 50 µl reaction containing 10 units of E. coli Poly(A) Polymerase with 1 µg of εX174 RF I DNA for 3 hours at 37°C resulted in < 10% conversion to RFII as determined by agarose gel electrophoresis.

**References:**

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**Quality Control Assays**

**RNase Assay:** Incubation of a 10 µl reaction containing 5 units of E. coli Poly(A) Polymerase with 40 ng of RNA transcript for 2 hours at 37°C resulted in no detectable degradation of the RNA as determined by gel electrophoresis.

**DNA Exonuclease Activity:** Incubation of a 50 µl reaction containing 10 units of E. coli Poly(A) Polymerase with 1 µg of a mixture of single and double-stranded 3H E. coli DNA (200,000 cpm/µg) for 3 hours at 37°C released < 0.1% of the total radioactivity.

**DNA Endonuclease Activity:** Incubation of a 50 µl reaction containing 10 units of E. coli Poly(A) Polymerase with 1 µg of εX174 RF I DNA for 3 hours at 37°C resulted in < 10% conversion to RFII as determined by agarose gel electrophoresis.

**References:**