

# Poly(A) Polymerase

<b>Catalog #</b>	3724
<b>Package Size</b>	500 Units
<b>Volume</b>	100µl
<b>Concentration</b>	5 units/µl

## Description

Intact Genomics Poly(A) Polymerase catalyzes the addition of AMP from ATP to the 3'-hydroxyl of RNA in a sequence-independent manner. Poly(A) Polymerase uses single-stranded RNA as a primer, ATP as a substrate and Mg<sup>2+</sup> as a co-factor.

## Physical Purity

The physical purity of this enzyme is ≥98% as assessed by SDS-PAGE with Coomassie® blue staining (see figure below).

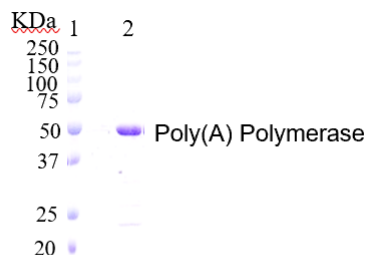


Fig. 1: Lane 1, Protein marker and lane 2, Poly(A) Polymerase.

## Product Source

E. coli BL21 (DE3) strain expressing Poly(A) Polymerase gene (1).

## Applications of Poly(A) Polymerase

- Labeling of RNA with ATP
- Poly(A) tailing of mRNA for vaccine production
- Poly(A) tailing of RNA for cloning or affinity purification
- Poly(A) tailing enhances translation of RNA

## Product Includes

- Poly(A) Polymerase
- 10x Poly(A) Polymerase reaction buffer
- 10 mM ATP

**Storage Temperature:** -20°C

## Storage Buffer

50 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, pH 7.5 @ 25°C

## 10x Poly(A) Polymerase Reaction Buffer

500 mM Tris-HCl, 2.5 M NaCl, 100 mM MgCl<sub>2</sub>, pH 8.0 @ 25°C

## Quality Control assays

Poly(A) polymerase is free from detectable nuclease activities

## References

1. Cao, G.J. and Sarkar, N. (1992). Proc. Natl. Acad. Sci. USA. 89, 10380-10384.

## Related Products

1. Reverse Transcriptase (Cat.# 3334)
2. Taq DNA Polymerase 2x Premix (Cat.# 3249)
3. Probe Based qPCR Master Mix (Cat# 4233)
4. cDNA Synthesis Kit (Cat# 4312)

## Protocol

1. Add the Components in the following order:

Component	Volume
RNA	1-10 µg
10x Poly(A) Polymerase reaction buffer	2.0 µl
ATP (10 mM)	2.0 µl
Poly(A) Polymerase	1.0 µl
H2O up to	20.0 µl

2. Incubate at 37°C for 30 Minutes
3. Stop the reaction by adding final concentration of 10 mM EDTA or directly proceed to the cleanup step

## Technical Support

Intact Genomics is committed to supporting the worldwide scientific research community by supplying the highest quality reagents. Each new lot of our products is tested to ensure they meet the quality standards and specifications designated for the product. Please follow the instructions carefully and contact us if additional assistance is needed. We appreciate your business and your feedback regarding the performance of our products in your applications.