RNA Polymerase, Core Enzyme has a molecular weight of approximately 400 kDa.

Applications:
- RNA synthesis from E. coli promoter
- Transcription initiation studies
- In vitro translation with PURExpress

Reagents Supplied with Enzyme:
- 5X E. coli RNA Polymerase Reaction Buffer

Reaction Conditions: 1X E. coli RNA Polymerase Reaction Buffer, supplemented with 0.5 mM each NTP and DNA template. Incubate at 37°C.

Source: E. coli RNA Polymerase, Core Enzyme is isolated from E. coli strain BL21.

Quality Control Assays:
- DNA Endonuclease Activity: Incubation of a 50 µl reaction containing 5 units of E. coli RNA Polymerase, Core Enzyme with 1 µg of φX174 RF I DNA for 4 hours at 37°C resulted in < 10% conversion to RF II, as determined by agarose gel electrophoresis.
- RNase Assay: Incubation of a 10 µl reaction containing 1 unit of E. coli RNA Polymerase, Core Enzyme with 40 ng of RNA transcript for 4 hours at 37°C resulted in no detectable degradation, as determined by gel electrophoresis.
- DNA Exonuclease Activity: Incubation of a 50 µl reaction containing 5 units of E. coli RNA Polymerase, Core Enzyme with 1 µg of a mixture of single and double-stranded 3H E. coli DNA for 4 hours at 37°C released < 0.1% of the total radioactivity.
Companion Products Sold Separately:

Ribonucleotide Solution Set
#N0450S 10 µmol of each
#N0450L 50 µmol of each

Ribonucleotide Solution Mix
#N0466S 10 µmol of each
#N0466L 50 µmol of each

RNase Inhibitor, Human Placenta
#M0307S 2,000 units
#M0307L 10,000 units

RNase Inhibitor, Murine
#M0314S 3,000 units
#M0314L 15,000 units

PURExpress® In Vitro Protein Synthesis Kit
#E6800S 10 reactions

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.