

Bioactive

T7 RNA Polymerase

Catalog # P8870 Size 25000 Units

Specification

Product Description	Bacteriophage T7 RNA Polymerase is a DNA-dependent RNA polymerase with high specificity for the T7 promoter. This enzyme catalyzes the 5' to 3' synthesis of RNA from DNA downstream from the promoter.
Form	Liquid
Activity	<p>One unit is defined as the amount of the enzyme incorporates 1 nmol of ATP into acid insoluble product in 1 hour at 37°C.</p> <p>1X RNA Polymerase Reaction Buffer, supplemented with 0.5 mM each ATP, UTP, GTP, CTP, and DNA template containing the T7 RNA Polymerase Promoter. Incubate at 37°C.</p> <p>(10X RNA Polymerase Reaction Buffer: 400 mM Tris-HCl (pH 8.0), 60 mM MgCl₂, 100 mM DTT, and 20 mM spermidine.)</p>
Storage Buffer	In 100 mM Tris-HCl, 20 mM KCl, pH 7.9 (1 mM DTT, 1 mM EDTA, 0.1% TritonR X-100 and 50% (v/v) glycerol)
Storage Instruction	<p>Store at -20°C.</p> <p>Avoid repeated freezing and thawing.</p>
Note	<p>Transcription reaction should be performed under RNase free condition. Use nucleasefree tubes, reagents, and water to avoid RNase contamination. Also, wear gloves when working with RNA.</p> <p>To obtain optimal condition, NTP concentration can be titrated between 10 – 15 mM.</p> <p>The volume of T7 RNA Polymerase can be titrated between 1-2 uL in the IVT reaction to optimize your assay.</p>

Applications

- Functional Study
- In vitro Transcription