Pyrophosphatase, Inorganic (E. coli)

M0361S

10 units 100 U/ml Lot: 0021305
RECOMBINANT Store at –20°C Exp: 5/15

Description: Inorganic pyrophosphatase (PPase) catalyzes the hydrolysis of inorganic pyrophosphate to form orthophosphate.

P₂O₇⁻⁴ + H₂O → 2HPO₄⁻²

Source: PPase is prepared from an E. coli strain containing a clone of the E. coli inorganic pyrophosphatase gene.

Applications:
- Increasing RNA yield in transcription reaction; enhancing DNA replication.

Quality Control Assays

RNase Assay: Incubation of a 10 µl reaction containing 0.1 unit of the enzyme with 40 ng of 300 base RNA transcript for 16 hours at 37°C resulted in no detectable degradation of RNA as determined by denaturing PAGE analysis.

Exonuclease Assay: Incubation of a 50 µl reaction containing 1 unit of the enzyme with 1 µg of a mixture of single and double-stranded [³²P] E. coli DNA for 4 hours at 37°C resulted < 0.5% of the total radioactivity.

Endonuclease Activity: Incubation of a 10 µl reaction containing 0.1 unit of the enzyme with 300 ng of supercoiled plasmid for 16 hours at 37°C produced less than 10% nicked or linear molecules as determined by agarose gel electrophoresis.

Quality Assurance: This enzyme is validated in an in vitro RNA synthesis reaction.

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