T7
Exonuclease

Reagents Supplied with Enzyme:
10X NEBuffer 4.

Reaction Conditions:
1X NEBuffer 4.
Incubate at 25°C.

Unit Definition: One unit is defined as the amount of enzyme to produce 1 nmol of acid soluble deoxyribonucleotide from double-stranded DNA in a total reaction volume of 50 µl in 30 minutes at 25°C.

Quality Control Assays

Endonuclease Activity: Incubation of 400 units of enzyme with 1 µg φX174 RF I DNA for 1 hour at 25°C in 50 µl 1X reaction buffer resulted in < 10% conversion to RF II.

RNase Activity (RNA/DNA Hybrid): Incubation of 10 units of enzyme with 15.2 nmol [3H]poly(A)-poly(dt) hybrid polymer for 1 hour at 37°C in a 50 µl reaction buffer released 9.7 nmol adenosine - 5'-monophosphate.

Heat Inactivation: No

References:

Source: Purified from an E. coli strain containing a TYB12 intein fusion

Supplied in: 10 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 5 mM DTT and 50% glycerol.

SS DNA Exonuclease Activity: Incubation of 10 units of enzyme with 1 µg sonicated duplex [3H]DNA for 30 minutes at 25°C in 50 µl reaction buffer released < 1.5% radioactivity.

RNase Activity (RNA/DNA Hybrid): Incubation of 10 units of enzyme with 15.2 nmol [3H]poly(A)-poly(dt) hybrid polymer for 1 hour at 37°C in a 50 µl reaction buffer released 9.7 nmol adenosine - 5'-monophosphate.

Heat Inactivation: No

References:

Source: Purified from an E. coli strain containing a TYB12 intein fusion

Supplied in: 10 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 5 mM DTT and 50% glycerol.

SS DNA Exonuclease Activity: Incubation of 10 units of enzyme with 1 µg sonicated duplex [3H]DNA for 30 minutes at 25°C in 50 µl reaction buffer released < 1.5% radioactivity.

RNase Activity (RNA/DNA Hybrid): Incubation of 10 units of enzyme with 15.2 nmol [3H]poly(A)-poly(dt) hybrid polymer for 1 hour at 37°C in a 50 µl reaction buffer released 9.7 nmol adenosine - 5'-monophosphate.

Heat Inactivation: No

References:

Source: Purified from an E. coli strain containing a TYB12 intein fusion

Supplied in: 10 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 5 mM DTT and 50% glycerol.

SS DNA Exonuclease Activity: Incubation of 10 units of enzyme with 1 µg sonicated duplex [3H]DNA for 30 minutes at 25°C in 50 µl reaction buffer released < 1.5% radioactivity.

RNase Activity (RNA/DNA Hybrid): Incubation of 10 units of enzyme with 15.2 nmol [3H]poly(A)-poly(dt) hybrid polymer for 1 hour at 37°C in a 50 µl reaction buffer released 9.7 nmol adenosine - 5'-monophosphate.

Heat Inactivation: No

References: