

Product components

Components	Component number	Concentration	2,500 U
5' Deadenylase	RM20572	50,000 U/mL	50 µL
10X ABuffer A	RM20125	10X	1.25 mL

Product Description

The 5' Deadenylase derived from yeast can remove adenosine residues from the 5'-end of DNA and RNA, retaining the 5'-end phosphate group. It can cleave AppppA to produce ATP and AMP.

Product Source

Purified from *E.coli* strain carries *S.cerevisiae* HNT3 gene.

Storage

-20°C

Unit Definition

One unit is defined as the amount of enzyme required to remove 10 pmol AMP from the 5' adenylated DNA oligonucleotide at 30°C for 10 minutes.

Reaction Conditions

1X ABuffer A, incubate at 30°C

1X ABuffer A

10 mM Bis-Tris-Propane-HCl, 10 mM MgCl₂, 1 mM DTT, pH 7@ 25°C

Storage Conditions

10 mM Tris-HCl, 100 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 0.1% Triton® X-100, 50% glycerol, pH 7.5@ 25 °C

Heat Inactivation

70°C for 20 min

Notes

The substrate for 5' adenylation can be dsDNA, ssDNA, and 5'-terminal adenylate residue-containing nicked DNA. The enzyme is more sensitive to dsDNA and nick DNA.

Operation Description

1. Set-up the following reaction on ice, noting that the enzyme should be added at the end and then gently mix the reaction by pipetting up and down and microcentrifugation.

Components	50 μ L Reaction
10X ABuffer A	2 μ L (1X)
Substrate (5-50 pmol)	variable
5' Deadenylase	1 μ L (50 U)
Nuclease-Free-Water	to 20 μ L

2. Incubate at 30°C for 0.5-1 hour.