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TelN Protelomerase

Catalog #TLN-BE001

Product Component	Sizes
TelN Protelomerase (10U/µL)	1000U, 10kU
10X TelN Reaction Buffer	1ml, 10mL

Storage/Transportation Condition Store at -20°C ± 5°C for up to 12 months. Avoid repeated freeze/thaw cycles. Transport on dry ice.
Form Liquid
Source *E.coli* strain that carries TelN from phage N15
Storage Buffer 10 mM Tris-HCl, 100 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 50% Glycerol, pH 7.4
10X TelN Reaction Buffer 200 mM Tris-HCl, 100 mM $(NH4)_2SO_4$,100 mM KCl, 20 mM $MgSO_4$, 1% Triton X-100, pH 8.8
Concentration 10U/µL
Unit Definition One unit is defined as the amount of enzyme required to cleave 0.5 µg of BsaI linearized pMiniT-TelN control plasmid (313 fmol TelN recognition site) in a total reaction volume of 50 µL at 30°C for 30 minutes.

Product Description

TelN Protelomerase is cloned from bacteriophage N15. TelN cuts dsDNA at the recognition site TelRL (56 bp), which consists of a palindromic sequence-TelO in the middle and palindromic sequences R3 and L3 at both ends of 14 bp form (Figure 1). TelN has cutting-ligating enzyme activity and covalently ligates at the cleavage site forming hairpin termini (Figure 2).

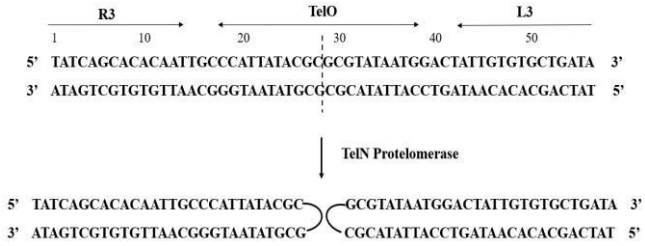

Figure 1. TelRL site

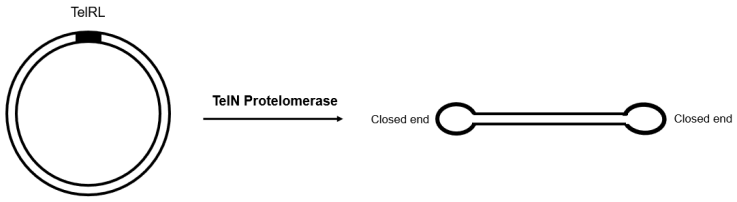

Figure 2. Circular Plasmid Linearization

Applications

- *In vitro* enzymatic synthesis of DNA constructs

Recommended Protocol for Digestion

1. Make the reaction mixture according to the table below:

Reagent	Quantity
dsDNA	X µg
10X TelN Reaction Buffer	2 µL
TelN Protelomerase (10U/µL)	1 µL
Nuclease-free H_2O	Up to 20 µL

2. Gently mix the reaction by pipetting up and down and spin for a few seconds.
3. Incubate at 30°C for 30 minutes.
4. Heat inactivation at 75°C for 5 minutes.

Notes

1. For research use only.