



For research use only

ISO9001

T4 Endonuclease V

Product	Quantity	Cat. No.	Remarks
T4 Endonuclease V	2,000 unit	EBT-3029	10 unit/ μ l

Description

T4 Endonuclease V, also known as PDG (pyrimidine dimer glycosylase), has N-glycosylase and apurinic/aprimidinic lyase (AP lyase) activities. T4 Endonuclease V locates and binds cis-syn-cyclobutane pyrimidine dimers caused by UV irradiation. The enzyme cleaves the glycosyl bond of the 5' end of the pyrimidine dimer and breaks the phosphodiester bond at the AP site.

T4 Endonuclease V is expressed and purified from *E.coli*.

Applications

- Study of UV damage to DNA and its repair
- Single cell gel electrophoresis (Comet assay)
- Detection of UV mutational hotspots

Reagents Supplied & Storage Condition

- T4 Endonuclease V : 10 unit/ μ l, Store at -20°C.
- 10x T4 Endonuclease V Reaction Buffer : Store at 4°C
- 10 mg/ml BSA : Store at 4°C.

Reaction Condition

T4 Endonuclease V in 1X T4 Endonuclease Reaction Buffer and 0.1 mg/ml BSA. Incubate at 37°C.

10x Reaction Buffer

1 M NaCl, 10 mM DTT, 10 mM EDTA, 250 mM Na₂HPO₄ (pH 7.2)

Storage Buffer

10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM DTT, 0.1 mM EDTA, 50% Glycerol

Unit Definition

One unit of T4 Endonuclease V converts 1 μ g of UV-irradiated plasmid DNA from covalently closed circles to nicked form in 30 minutes at 37°C.

QC Tests

Activity, exo and endonuclease activity test, SDS-PAGE purity, performance tests.



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