



For research use only

ISO9001

RecBCD (*E.coli*)

Product	Quantity	Cat. No.	Remarks
RecBCD (<i>E.coli</i>)	2,000 unit	EBT-3024	10 unit/ μ l

Description

RecBCD complex (Exonuclease V) from *E.coli* is a processive DNA helicase and nuclease that participates in the repair of chromosomal DNA through homologous recombination. The hydrolysis of ssDNA and dsDNA is bi-directional (from both the 3' and 5' ends) and processive, producing nucleoside monophosphate. Magnesium ion is required for the exonuclease activity, while calcium, nickel, zinc, and copper inhibits the exonuclease activity and calcium allows double-stranded DNA unwinding (helicase activity) without hydrolysis. RecBCD is expressed and purified from *E.coli*.

Applications

- Removal of contaminating bacterial chromosomal DNA in plasmid, fosmid, cosmid, and BAC clone or vector preparations.
- Degradation of linear ssDNA and dsDNA while preserving nicked and supercoiled plasmid DNA.

Reagents Supplied & Storage Condition

- RecBCD (*E.coli*): 10 unit/ μ l, Store at -20°C.
- 10x RecBCD Reaction Buffer : Store at 4°C.

Reaction Condition

RecBCD in 1X RecBCD Reaction Buffer. Incubate at 37°C.

10x Reaction Buffer

500 mM Potassium Acetate, 200 mM Tris-acetate, 100 mM Magnesium Acetate, 10 mM DTT.

Storage Buffer

50 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.1% Triton® X-100.

Unit Definition

One unit of RecBCD Nuclease degrades 1 nmol of deoxyribonucleotides in linear dsDNA in 30 minutes at 37°C in 1X Reaction Buffer containing 1 mM ATP.

QC Tests

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



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