



For research use only

ISO9001

Cre Recombinase

Product	Quantity	Cat. No.	Remarks
Cre Recombinase	200 unit	EBT-3040	1 unit/ μ l

Description

Cre Recombinase is a type I topoisomerase from bacteriophage P1 that catalyzes the site-specific recombination of DNA between lox P sites. The enzyme requires no energy cofactors and Cre-mediated recombination quickly reaches equilibrium between substrate and reaction products. The lox P recognition element is a 34 bp sequence comprised of two 13 bp inverted repeats flanking an 8 bp spacer region which confers directionality. Recombination products depend on the location and relative orientation of the lox P sites. Two DNA species containing single lox P sites will be fused. DNA between directly repeated lox P sites will be excised in circular form while DNA between opposing lox P sites will be inverted with respect to external sequences.

Concentration & Storage Condition

1 unit/ μ l, Store at -20°C.

Storage Buffer

15 mM HEPES, pH 8.0, 250 mM NaCl and 50% glycerol.

10x Reaction Buffer

500 mM Tris-HCl, pH 7.5, 330 mM NaCl and 100 mM MgCl₂.

Unit Definition

One unit is defined as the amount of enzyme necessary to produce maximal site-specific recombination of 0.25 μ g Lox P containing control DNA in 30 min at 37°C in a total reaction volume of 50 μ l. Maximal recombination is determined by agarose gel analysis and by transformation.

QC Tests

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



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