Methyl-directed DNA Endonuclease

SibEnzyme®

Kro I

Recognition Sequence: G↓C(5mC) GGC
CGG(5mC)C↑G

S **E541**
50 units
1,000 u/ml

Lot: 2
Exp: 04/20
Store at -20°C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	50-75	100	25-50	50-75	75-100	100

37°C | 65°C | G | pMHpaII1/ DriI

For more details scan the code

Ph/F +7(383)333-6853
info@sibenzyme.com
www.sibenzyme.com

CERTIFICATE OF ANALYSIS

Source: Kocurea rosea 307.

Supplied in:
10 mM Tris-HCl (pH 7.5); 200 mM NaCl; 0,1 mM EDTA; 7 mM 2-mercaptoethanol; 200 µg/ml BSA; 50% glycerol.

Reaction Conditions:
1 x SEBuffer G. Incubate at 37°C.

1 x SEBuffer G (pH 7.6 @ 25°C)
10 mM Tris-HCl 50 mM NaCl
10 mM $MgCl_2$ 1 mM DTT

Heat Inactivation:
Enzyme is inactivated by incubation at 65°C for 20 minutes.

Unit Definition:
One unit is defined as the amount of enzyme required to hydrolyze completely1 µg of linearized plasmid pMHpaII1 in 1 hour at 37°C in a total reaction volume of 50 µl.

DNA pMHpaII1/DriI is a linearized plasmid pMHpaII1. pMHpaII 1 carries a gene of DNA-methyltransferase M.HpaII, which methylates sites 5`-CCGG-3` producing 5`-C(5mC)GG-3`/3`-GG(5mC)C-5`, and includes three canonical sites 5`-GC(5mC)GGC-3`/3`-CGG(5mC)CG-5`.

Quality Control Assays:
16-Hour Incubation: No detectable degradation of 1 µg of Lambda DNA was observed after incubation with 1 units of enzyme for 16 hours at 37°C in a total reaction volume of 50 µl.

Oligonucleotide Assay: No detectable degradation of a single- and double-stranded oligonucleotide was observed after incubation with 1 units of enzyme for 3 hours.

Enzyme Properties
When using a buffer other than the optimal (supplied) SE-Buffer, it may be necessary to add more enzyme to achieve complete digestion.

Reagents Supplied with Enzyme:
10 x SE-Buffer G.

Substrate specificity:
The enzyme cleaves C5-methylated DNA and doesn't cut unmodified DNA.
Kro I doesn`t cleave DNA modified with MspI DNA-methyltransferase.