Restriction Endonuclease

SibEnzyme®

# Kpn I

Recognition Sequence:

GGTAC↓C
C↑CATGG

L

**E080**

10,000 units

20,000 u/ml

Lot:

Exp:

Store at -20C

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

37°C | 80°C | B | λ | RR | BSA

For more details scen the code

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## CERTIFICATE OF ANALYSIS

Source: *An E.coli strain that carries the cloned Kpn I gene from Klebsiella pneumonia.*

Supplied in:
10 mM Tris-HCl (pH 7.5), 50 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 200 µg/ml BSA, 50% glycerol.

Reaction Conditions:
1X SE-Buffer B, BSA (100 µg/ml). Incubate at 37° C.

1X SE-Buffer B (pH 7.6 @ 25° C):
10 mM Tris-HCl
10 mM $MgCl_2$ 1 mM DTT

Heat Inactivation:
Enzyme is inactivated by incubation at 80°C for 20 minutes.

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at37° C in a total reaction volume of 50 µl.
To obtain 100% activity, BSA should be added to the 1 x reaction mix to a final concentration of 100 µg/ml. High enzyme concentration may result in star activity. Long incubation with BSA is not recommended due to star activity.

Quality Control Assays
Ligation: After 20-fold overdigestion with Kpn I, ~90% of the DNA fragments can be ligated and recut.

16-Hour Incubation: A 50 µl reaction containing in 1 µg of DNA and 20 Units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 20 units of restriction endonuclease for 3 hours.

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

Reagents Supplied with Enzyme:
10X SE Buffer B, BSA (10 mg/ml).

Not blocked by overlapping Dcm methylation (C$^m$CWGG): GGTACCWGG