Restriction Endonuclease

SibEnzyme®

Rig I

Recognition Sequence: GGCCGG↓CC
CC↑GGCCGG

S **E529**
100 u
2,000 u/ml

Lot:
Exp:
Store at -20°C/-70°C *

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	75-100	50-75	0-10	10-25	50-75	10

37°C | 65°C | SE-RigI | Ad2 DNA | BSA

For more details scen the code

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

CERTIFICATE OF ANALYSIS

Source: *Rhizobium yangligense.*

Supplied in:
10 mM Tris-HCl (pH 7.5), 100 mM KCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 200 µg/ml BSA, 50% glycerol.

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

1X SE-Buffer Rig I (pH 8.5 @ 25° C):
10 mM Tris-HCl
5 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 digest 1 µg of Adv-2 DNA in 1 hour at 37° 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.

Quality Control Assays
Ligation:After 3-fold overdigestion with Rig I, more than 95% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation:A 50 µl reaction containing 1 µg of DNA and 4 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 2 units of restriction endonuclease for 3 hours.
Do not use BSA for long incubation.

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 RigI, BSA (10mg/ml).

Blocked by mCG or GmC methylation:
5`-GGC(m5C)GGCC-3`/3`-CCGG(m5C)CGG-5` or
5`-GG(m5C)CGG(m5C)C-3`/3`-C(m5C)GGC(m5C)GG-5`

Storage at -70° C is recommended for periods longer than 7 days.