KpnI

5'…GGTAC▼C…3'
3'…C▲CATGG…5'

Content:	Ref No.	250119S	color
	KpnI 10 U/µL	3500 units	blue
	10x buffer U_{KpnI}*	1x 1 mL	red
	10x buffer K	1x 1 mL	yellow
	Datasheet		

Lambda DNA KpnI digest, 1 % agarose

We recommend the use of buffer K as universal buffer (BSA included).
Star activity: Conditions of low ionic strength, high enzyme concentration, glycerol concentration >5% or pH >8.0 may result in star activity.

Storage: -20 °C

Concentration: 10 U/µL

Source: KpnI is a restriction enzyme purified from *Klebsiella pneumonia* OK8.

Enzyme Properties:

1x buffer U_{KpnI} composition: 10 mM Tris-HCl (pH 7.0 at 25 °C), 10 mM $MgCl_2$, 1 mM Dithiothreitol, 0.01 % Triton X-100

General reaction mixture:

10 U KpnI	1 µL
10x buffer U_{KpnI}* or K	2 µL
DNA substrate	<1 µg
Sterile ultrapure water	Up to 20 µL

Incubate for 15 min at 37 °C

Heat inactivation: No.

Methylation Sensitivity:
dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Not sensitive

Storage buffer: 10 mM Tris-HCl (pH 7.4), 50 mM KCl, 0.1 mM EDTA, 1 mM Dithiothreitol, 200 µg/ml bovine serum albumin and 50 % glycerol. Store at -20 °C.

Absence of contaminants: 30 units of KpnI do not produce any unspecific cleavage products after 16 hrs incubation with 1 µg of Lambda DNA/EcoRI digest at 37 °C. After 10-fold overdigestion with KpnI, greater than 95% of the DNA fragments can be ligated and recut with this enzyme.

Unit definition: One unit is defined as the amount of enzyme required to produce a complete digest of 1 µg Lambda DNA in 60 minutes in a total reaction volume of 0.05 mL under assay conditions.

Frequency of Cutting:

λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
2	8	0	1	1	0

Percent Activity in BIORON Buffers:

L*	M*	H*	SH*	A*	K
75-100	25-50	<10	<10	50	**100**

*we recommend the addition of BSA to a final concentration of 100 µg/mL.

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