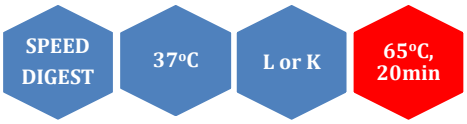
Nae I



5’ ···GCC▼GGC···3’
3’ ···CGG▲CCG···5’

NaeI is a restriction enzyme purified from *Streptomyces* species.

Catalogue No — *122-1, 500 U*
122-2, 3x500 U

Concentration — *10-12u/µl and 40-60u/µl**

**Add an H to cat.# to order the high concentration*

Reagents supplied: 10x L and 10x K buffer

Unit substrate: pBR322 DNA.

Unit calculation assay conditions: 10 mM Tris-HCl (pH 7.9 @ 25°C), 10 mM $MgCl_2$, 1 mM dithiothreitol, 100 µg/ml BSA. Incubate at 37°C.

Absence of contaminants: 50 units of *Nae* I do not produce any unspecific cleavage products after 16 hrs incubation with 1 µg of pBR322 at 37°C. After 10-fold overdigestion with *Nae* I, greater than 80% of the DNA fragments can be ligated and recut with this enzyme.

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

Heat inactivation: 65°C for 20 minutes.

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

Note: *Nae* I exhibits site preferences. pBR322 contains four *Nae* I recognition sequences. Two of these sites are readily cleaved, one is cleaved moderately slowly, and the fourth is cleaved 50-fold more slowly.

Percent Activity in MINOTECH Buffers

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

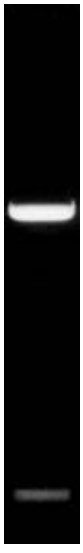
General reaction mixture:

10U NaeI	1µl
10x L or K buffer *	2µl
DNA substrate	<1µg
Sterile ultrapure water	Up to 20 µl
Incubate for 15 min at 37°C	

**In the case of L buffer we recommend the addition of BSA to a final concentration of 100 µg/ml.*

Frequency of Cutting

λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
1	13	0	0	1	4



pBR322 0.7 % agarose

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