



The ENZYME Company

Enzyme	Prototype	Recognition Sequence	Cat No.	Package, u.a.
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Sma I	Sma I	CCC [^] GGG GGG [^] CCC	246020	2000 units
			246100	10000units

Lot-number:	Assayed:	Quantity:

Origin	E.coli strain that carries Sma I gene from Serratia marcescens
Concentration	10000-30000, u.a./ml
Storage conditions	10 mM Tris-HCl (pH 7.5); 200 mM NaCl; 0.1 mM EDTA; 7 mM 2-mercaptoethanol; 200 ug/ml BSA, 50% glycerol; Store at -20°C.
Ligation	After 2-fold overdigestion with enzyme more than 90% of the DNA fragments can be ligated (by using of high concentration T4 DNA Ligase and 10% PEG) and recut.
Non-specific activity	No nonspecific activity was detected after incubation of 1 ug of DNA with 40 u.a. of enzyme for 16 hours at 25°C.
Optimum temperature	25 °C
Inactivation 20 minutes under 65 °C	Yes
Optimum SE-buffer	Y (33 mM Tris-acetate (pH 7.9 at 25°C); 10 mM magnesium acetate; 66 mM potassium acetate; 1 mM DTT.)

Enzyme activity in % of maximum :

B	G	O	W	Y
0 - 10	0 - 10	0 - 10	0 - 10	100

References: Endow, S.A., Roberts, R.I., J. Mol. Biol. 112: 521-529 (1977).

Unit-definition	One unit of the enzyme is the amount required to hydrolyze 1 µg of DNA in 1 hour in a total reaction volume of 50 µl. Concentrated enzymes are diluted to approximately 1000 units/ml with the buffer (10mM Tris-HCL (ph7.6); 50 mM KCL; 0,1 mM EDTA; 1 mM DTT; 200 µg/ml BSA; 50% glycerol) before determining their activity.
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