



The ENZYME Company

Enzyme	Prototype	Recognition Sequence	Cat No	Package, u.a.
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Smi I	Swa I	ATTT^AAAT TAAA^TTTA	247010	1000 units
			247050	5000 units

Lot-number:	Assayed:	Quantity:

Origin	Streptococcus milleri S
Concentration	10000-30000, u.a./ml
Storage conditions	10 mM Tris-HCl (pH 7.5); 250 mM NaCl; 0.1 mM EDTA; 7 mM 2-mercaptoethanol; 100 ug/ml BSA; 50% glycerol. Store at -20°C.
Ligation	After 5-fold overdigestion with enzyme 80% of the DNA fragments can be ligated and recut. Ligation >95% in presence of 10% PEG.
Non-specific activity	No nonspecific activity was detected after incubation of 1 ug of DNA with 30 u.a. of enzyme for 16 hours at 37°C.
Optimum temperature	37 °C
Inactivation 20 minutes under 65 °C	Yes
Optimum SE-buffer	O (50 mM Tris-HCl (pH 7.6 at 25°C); 10 mM MgCl ₂ ; 100 mM NaCl; 1 mM DTT + 100 ug/ml BSA) + BSA

Enzyme activity in % of maximum :

B	G	O	W	Y
25 - 50	25 - 50	100	75 - 100	25 - 50

Note: To obtain 100% activity, BSA should be added to the 1 x reaction mix to a final concentration of 100 ug/ml.

References: Dedkov, V.S., Bondar, T.S., Shevchenko, A.V., Degtyarev, S.Kh. Mol. Gen. Mikrobiol. Virusol. 1: 23-27 (2000).

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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Bioron GmbH

Contact: Phone: +49-(0)-621- 5720 915 Fax:+49-(0)-621-5720 916
E-Mail: info@bioron.net NET: www.bioron.net