



***The ENZYME Company***

Enzyme	Prototype	Recognition Sequence	Cat No	Package, u.a.
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<b>Sfi I</b>	Sfi I	GGCCNNNN <sup>^</sup> NGGCC CCGGN <sup>^</sup> NNNNCCGG	244005	500 units
			244025	2500 units

Lot-number:	Assayed:	Quantity:

<b>Origin</b>	E.coli strain, that carries gene Sfi I from Streptomyces fimbriatus
<b>Concentration</b>	10000-40000, u.a./ml
<b>Storage conditions</b>	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.
<b>Ligation</b>	After 10-fold overdigestion with enzyme more than 70% of the DNA fragments can be ligated and recut. In the presence of 10% PEG ligation is better.
<b>Non-specific activity</b>	No nonspecific activity was detected after incubation of 1 ug of DNA with 40 u.a. of enzyme for 16 hours at 50°C.
<b>Optimum temperature</b>	50 °C
<b>Inactivation 20 minutes under 65 °C</b>	Yes
<b>Optimum SE-buffer</b>	<b>G</b> (10 mM Tris-HCl (pH 7.6 at 5°C); 10 mM MgCl <sub>2</sub> ; 50 mM NaCl; 1 mM DTT + 100 ug/ml BSA) + <b>BSA</b>

**Enzyme activity in % of maximum :**

<b>B</b>	<b>G</b>	<b>O</b>	<b>W</b>	<b>Y</b>
75 - 100	100	25 - 50	25 - 50	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.

Blocked by overlapping Dcm methylation (C<sup>m</sup>CWGG): **GGCCWGGNNGGCC**. Not blocked by overlapping Dcm methylation (C<sup>m</sup>CWGG): **GGCCNNNNNGGCCWGG**.

**References:** Qiang, B.-Q., Schildkraut, I. Nucleic Acids Res. 12: 4507-4515 (1984).

<b>Unit-definition</b>	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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