



***The ENZYME Company***

Enzyme	Prototype	Recognition Sequence	Cat No	Package, u.a.
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Sph I	Sph I	GCATG <sup>^</sup> C C <sup>^</sup> GTACG	248002	200 units
			248010	1000units

Lot-number:	Assayed:	Quantity:

<b>Origin</b>	Streptomyces phaeochromogenes
<b>Concentration</b>	3000-10000, u.a./ml
<b>Storage conditions</b>	10 mM Tris-HCl (pH 7.5); 100 mM NaCl; 0,1 mM EDTA; 1 mM DTT; 200 ug/ml BSA; 50% glycerol Store at -20°C.
<b>Ligation</b>	After 5-fold overdigestion with enzyme more than 90% of the DNA fragments can be ligated and recut.
<b>Non-specific activity</b>	No nonspecific activity was detected after incubation of 1 ug of DNA with 10 u.a. of enzyme for 16 hours at 37°C.
<b>Optimum temperature</b>	37 °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	G	O	W	Y
25 - 50	100	75 - 100	75 - 100	50 - 75

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

**References:** Fuchs, L.Y., Covarrubias, L., Escalante, L., Sanchez, S., Bolivar, F. Gene 10:39-46 (1980).

<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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