



The ENZYME Company

Enzyme	Prototype	Recognition Sequence	Cat No	Package, u.a.
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Bsa29 I	Cla I	AT <sup>^</sup> CGAT TAGC <sup>^</sup> TA	214010	500 units
			209050	2500 units

Lot-number:	Assayed:	Quantity:

Origin	Bacillus stearothermophilus 29
Concentration	20000, u.a./ml
Storage conditions	10 mM Tris-HCl (pH 7.5); 250 mM NaCl; 0.1 mM EDTA; 7 mM 2-mercaptoethanol; 200 ug/ml BSA; 50% glycerol. Store at -20°C.
Ligation	After 20-fold overdigestion with enzyme more than 90% of the DNA fragments can be ligated 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 37°C.
Optimum temperature	37 °C
Inactivation 20 minutes under 65 °C	Yes
Optimum SE-buffer	G (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) + BSA

Enzyme activity in % of maximum :

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

Note: Blocked by overlapping Dam methylation (G<sup>m</sup>ATC): GATCGAT and ATCGATC.

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

References: Repin, V.E., Degtyarev, S.K. Unpublished observations.

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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