



The ENZYME Company

Enzyme	Prototype	Recognition Sequence	Cat No	Package, u.a.
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Afe I	Eco47 III	AGC [^] GCT TCG [^] CGA	207002	200 units
			207010	1000 units

Lot-number:	Assayed:	Quantity:

Origin	Alcaligenes faecalis T2774
Concentration	10000-50000, u.a./ml
Storage conditions	20 mM Tris-HCl (pH 7.5); 50 mM KCl; 0.1 mM EDTA; 1 mM DTT; 200 ug/ml BSA; 50% glycerol; Store at -20°C.
Ligation	After 10-fold overdigestion with enzyme more than 80% of DNA pBR322 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	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
10 - 25	25 - 50	75 - 100	75 - 100	100

Note: The minimum number of units that resulted in complete digestion of 1 ug of substrate DNA in 16 hours is 0,25. AfeI cleaves supercoiled and linear plasmid DNA (pBR322) at a roughly equal rate. AfeI cleaves Lambda DNA/BamHI digest at a rate 3-4 times higher than plasmid DNA.

References: Abdurashitov, M.A., Kileva, E.V., Shevchenko, A.V., Degtyarev, S.Kh. Unpublished observations. (1994)

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-

Bioron GmbH

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