



CERTIFICATE OF ANALYSIS

Eco105I (SnaBI)

#ER0402 3000 u

Lot: Expiry Date:

5'... T A C↓G T A...3'

3'... A T G↑C A T...5'

Concentration: 10 u/μl

Source: *E.coli* that carries the cloned *eco105IR*
gene from *E.coli* RFL105

Supplied with: 2x1 ml of 10X Buffer Tango™

Store at -20°C



In total 3 vials.

BSA included: Lot# BSA62-313P



RECOMMENDATIONS

1X Buffer Tango™ (for 100% Eco105I digestion)

33 mM Tris-acetate (pH 7.9), 10 mM magnesium acetate,
66 mM potassium acetate, 0.1 mg/ml BSA.

Incubation temperature

37°C.

Unit Definition

One unit is defined as the amount of Eco105I required
to digest 1 μg of lambda DNA-Cpol fragments in 1 hour
at 37°C in 50 μl of recommended reaction buffer.

Dilution

Dilute with Dilution Buffer (#B19): 10 mM Tris-HCl
(pH 7.4 at 25°C), 100 mM KCl, 1 mM EDTA, 1 mM DTT,
0.2 mg/ml BSA and 50% glycerol.

Double Digests

Tango™ Buffer is provided to simplify buffer selection for
double digests. 98% of Fermentas restriction enzymes are
active in a 1X or 2X concentration of Tango™ Buffer.

Please refer to the Fermentas Catalog or go to
www.fermentas.com/doubledigest to choose the best
buffer for your experiments.

Storage Buffer

Eco105I is supplied in: 10 mM Tris-HCl (pH 7.4 at 25°C),
100 mM KCl, 1 mM DTT, 1 mM EDTA, 1 mM
phenylmethylsulfonylfluoride, 0.2 mg/ml BSA and
50% glycerol.

Recommended Protocol for Digestion

- Add:

nuclease-free water	16 μ l
10X Buffer Tango™	2 μ l
DNA (0.5-1 μ g/ μ l)	1 μ l
Eco105I	0.5-2 μ l*
- Mix gently and spin down for a few seconds.
- Incubate at 37°C for 1-16 hours*.

The digestion reaction may be scaled either up or down.

Recommended Protocol for Digestion of PCR Products Directly after Amplification

- Add:

PCR reaction mixture	10 μ l (~0.1-0.5 μ g of DNA)
nuclease-free water	18 μ l
10X Buffer Tango™	2 μ l
Eco105I	1-2 μ l*
- Mix gently and spin down for a few seconds.
- Incubate at 37°C for 1-16 hours*.

* See Star Activity.

Thermal Inactivation

Eco105I is inactivated by incubation at 65°C for 20 min.

ENZYME PROPERTIES

Enzyme Activity in Fermentas REase Buffers, %

B	G	O	R	Tango™	2X Tango™
100**	50-100	0-20	0-20	100	0-20

**Star activity appears at a greater than 5-fold overdigestion (5 u x 1h).

Star Activity

An excess of Eco105I (15 u/ μ g DNA x 1 hour) may result in star activity.

Methylation Effects on Digestion

Dam: never overlaps – no effect.
Dcm: never overlaps – no effect.
CpG: completely overlaps – blocked.
EcoKI: never overlaps – no effect.
EcoBI: never overlaps – no effect.

Stability during Prolonged Incubation

A minimum of 0.5 units of the enzyme is required for complete digestion of 1 μ g of lambda DNA in 16 hours at 37°C.

Digestion of Agarose-embedded DNA

A minimum of 5 units of the enzyme is required for complete digestion of 1 μ g of agarose-embedded lambda DNA in 16 hours.

Number of Recognition Sites in DNA

λ	Φ X174	pBR322	pUC57	pUC18/19	pTZ19R/U	M13mp18/19
1	0	0	0	0	0	1

For **QUALITY CONTROL ASSAY DATA** see back page

QUALITY CONTROL ASSAY DATA

Overdigestion Assay

No detectable change in the specific fragmentation pattern is observed after a 10-fold overdigestion with Eco105I (10 u/μg lambda DNA x 1 hour) (see Star Activity).

Ligation/Recutting Assay

After a 2-fold overdigestion (2 u/μg DNA x 1 hour) with Eco105I, more than 80% of the digested phage M13mp18 DNA fragments can be ligated at a 5'-termini concentration of 0.1 μM. More than 90% of these sites can be recut.

Labeled Oligonucleotide (LO) Assay

No detectable degradation of single-stranded or double-stranded labeled oligonucleotides occurred during incubation with 10 units of Eco105I for 4 hours.

Quality authorized by:



Jurgita Zilinskiene

PRODUCT USE LIMITATION.

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.fermentas.com for Material Safety Data Sheet of the product.