

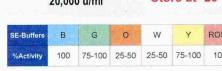
## Ahl I

Restriction

Endonuclease

A L CTAGT Recognition TGATC TA Sequence:

E174T Lot: 15 Exp: 09/20 5.000 units Store at -20°C 20.000 u/ml









T7

**TURBO** 

## CERTIFICATE OF ANALYSIS

Description: Turbo Ahl I can be used for short time (10-15 min) DNA digestion as well as for standard

reaction. The reaction can be performed using optimal or universal (ROSE) Buffer. Buffer ROSE is perfect for double digestion.

Source: Alteromonas haloplanktis SP

Supplied in: 10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 200 µg/ml BSA, 50% glycerol.

Reaction Conditions: 1 x SE-Buffer B or 1 x SE-Buffer ROSE. Incubate at 37°C.

1 x SE-Buffer B (pH 7.6@ 25°):

10 mM Tris-HCl

Heat Inactivation: No (80°C for 20 minutes).

10 mM MgCl 1 mM DTT

enzyme required to digest 1 µg of T7 DNA in 1 hour at 37°C in a total reaction volume of 50 µl. Quality Control Assays

T4 DNA Ligase and recut.

reaction incubated for 1 hour.

Ligation: After 20-fold overdigestion with Ahl I, >90% of the DNA fragments can be ligated with

Unit Definition: One unit is defined as the amount of

16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 40 units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 20 units of restriction endonuclease for 3 hours.

Reagents Supplied with Enzyme: 10 x SE-Buffer B. 10 x SE-Buffer ROSE.

## Turbo DNA Digestion:

Applications: -Fast DNA analysis

-Fast preparation of vectors for cloning

-Double digestion **Enzyme Properties:** 

PCR product

Sterile water

1 μl of Turbo Ahl I cuts 1 μg of DNA in 1 x SE-Buffer B or universal 1 x SE-Buffer ROSE in 10-15 min (see the

protocol below). Short time DNA digestion requires high quality purification of DNA sample. This enzyme can digest DNA at standard incubation time (1-16 hours) as well.

Turbo reaction protocol: 20 µl of the reaction volume:

Reaction Buffer (x10) - 2 µl Plasmid DNA

- 1-2 μl (up to 1 μg) or - 5-10 μl (~0,2 μg) - up to 20 µl + 1 µl of Turbo Restriction Endonuclease

Incubate at 37°C for 10-15 min.