

Methyl-directed DNA
Endonuclease



Aox I

E569



50 u

Lot: 2

500 u/ml

Store at -20°C

Recognition Sequence:

5'...↓PuG(5mC)Py ...3'

3'... Py(5mC)GPu↑...5'

Source: *Arthrobacter oxydans* 25K

**The enzyme cleaves C5-methylated DNA
and does not cut unmodified DNA.**

Supplied in:

10 mM KH₂PO₄ (pH 7.4); 100 mM NaCl; 0.1 mM EDTA; 7 mM 2-mercaptoethanol;
50% glycerol.

Reaction Conditions:

1×SEBuffer **Aox I** Incubate at **60°C**.

1×SEBuffer Aox I (pH 8.5 @ 25°C)

10 mM Tris-HCl 3 mM MgCl₂ 1 mM DTT

**Warranty period for the enzyme storage at -20°C is one year
from the date of the last assay indicated on the enzyme vial.**

Unit Definition: One unit is defined as the amount of enzyme required to
hydrolyze in 1 µg of linearized plasmid pMHaellI/Dril in 1 hour at 60°C in a total
reaction volume of 50 µl.

DNA pMHaellI/Dril is a linearized plasmid pMHaellI. pMHaellI carries a gene of
DNA-methyltransferase M.HaellI, which methylates sites 5`-GGCC-3` producing
5`- GG(5mC)C-3`/3`-C(5mC)GG-5`.

Quality Control Assays

16-Hour Incubation:

No detectable degradation of 1 µg of Lambda DNA was observed after
incubation with 1 units of enzyme for 16 hours at 60°C in a total reaction
volume of 50 µl.

Oligonucleotide Assay:

No detectable degradation of a single- and double-stranded oligonucleotide
was observed after incubation with 0,5 units of enzyme for 3 hours.

Activity in SEBuffers:

SEBuffer B 75-100%

SEBuffer G 25-50%

SEBuffer O 10-25%

SEBuffer W 25-50%

SEBuffer Y 75-100%

SEBuffer ROSE 100%

Reagents Supplied with Enzyme: 10×SEBuffer Aox I

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

CERTIFICATE OF ANALYSIS