Endonuclease VIII

WEB: www.abclonal.com

Catalog: RK20534
Size: 1,000 U / 5,000 U
Concentration: 10,000 U/ml
Components:

Endonuclease VIII	RM20522
10X Endo VIII Reaction Buffer	RM20129

Product Description

Endonuclease VIII from *E.coli* acts as both an N-glycosylase and an AP-lyase. The N-glycosylase activity releases damaged pyrimidines from double-stranded DNA, generating an apurinic (AP site). The AP-lyase activity cleaves 3´and 5´to the AP site leaving a 5´ phosphate and a 3´ phosphate. Damaged bases recognized and removed by Endonuclease VIII include urea, 5, 6-dihydroxythymine, thymine glycol, 5-hydroxy-5-methylhyd antoin, uracil glycol, 6-hydroxy-5, 6-dihydrothymine and methyltartronylurea. While Endonuclease VIII is similar to Endonuclease III, Endonuclease VIII has β and δ lyase activity while Endonuclease III has only β lyase activity.

It is applicable to:

- Single cell gel electrophoresis (Comet assay).
- Alkaline elution.
- Alkaline unwinding.

Product Source:
An *E.coli* strain which carries the cloned nei gene.

Unit Definition:
One unit is defined as the amount of enzyme required to cleave 1 pmol of a 34 mer oligonucleotide duplex containing a single AP site* in a total reaction volume of 10 μl in 1 hour at 37 ℃ in 1X Endo VIII Reaction Buffer containing 10 pmol of fluorescently labeled oligonucleotide duplex.

** An AP site is created by treating 10 pmol of a 34 mer oligonucleotide duplex containing a single uracil residue with 1 unit of Uracil-DNA Glycosylase (UDG) for 2 minutes at 37 ℃.*

Reaction Conditions:
1X Endo VIII Reaction Buffer, Incubate at 37 ℃.

1X Endo VIII Reaction Buffer:
10 mM Tris-HCl, 75 mM NaCl, 1 mM EDTA, pH 8 @ 25 ℃

Storage Conditions:
10 mM Tris-HCl, 250 mM NaCl, 0.1 mM EDTA, 50% Glycerol, pH 8.0 @ 25 ℃

Heat Inactivation: 75 ℃ for 10 min

Notes
Recommended Dilution for Comet Assay: 1:10^4 to 1:10^5. For a protocol please visit: http://cometassay.com

QC Process:

- ◆ Purity is above 95% detected by SDS-PAGE.
- ◆ No endonuclease nuclease, RNase contamination.
- ◆ Host genomic DNA is no residual detected by PCR.

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