

## **EZSolution™ Benzo-Endonuclease**

**ALTERNATE NAMES:** Binuclease; Serratia marcescens binuclease; unrestricted endonuclease

CATALOG NO.: 9215-10, -50

AMOUNT: 10 kU, 50 kU

SOURCE: Serratia marcescens gene

MOL. WEIGHT: 30 kDa

FORM: Liquid

FORMULATION: In 20 mM Tris-CI (pH 8.0), 2 mM MgCl<sub>2</sub>, 2 mM NaCl, 50% glycerol

**ACTIVITY:** ≥ 250 U/µL

SPECIFIC ACTIVITY: ≥ 1000 kU/mg protein

**UNIT DEFINITION:** One unit of Benzo-Endouclease will digest sonicated salmon sperm DNA to produce acid-soluble

oligonucleotides equivalent to a ΔA260nm of 1.0 in 30 min at pH 8.0 at 37 °C.

**PURITY:** ≥ 90% (SDS PAGE)

PROTEASE ACTIVITY: None detected

**ENDOTOXIN:** Endotoxin free as determined by the LAL method

OPTIMAL pH: 8.0 (operational pH 6~10)

**OPTIMAL TEMPERATURE:** 37 °C (operational temp 0~42 °C)

ACTIVATOR: 1~10 mM Mg<sup>2+</sup>

STORAGE CONDITIONS: Aliquot the product to avoid repeated freeze-thaw cycles and store at -20°C

**DESCRIPTION:** Benzo-Endonuclease is a genetically engineered non-specific endonuclease from Serratia

marcescens gene. Functionally, this promiscuous nuclease digests all forms of DNA and RNA, including single stranded, double stranded, linear, circular and supercoiled DNA and RNA. The enzyme cleaves the phosphodiester bond of nucleic acids, producing 5' monophosphate terminated oligonucleotides 2-5 bases in length. Benzo-Endonuclease is not a sequence dependent nuclease, capable of cleaving the phosphodiester bond at all positions among a nucleic acid chain. The enzyme is produced and purified from eukaryotic yeast cells, without contamination of endotoxin from prokaryotic cells and is highly stable even under harsh industrial conditions. It has no detectable proteinase or esterase activity. Benzo-Endonuclease is an ideal tool enzyme in protein

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For reducing viscosity of cell lysates, proteins samples or culture supernatants

For digesting DNA/RNA

## **RELATED PRODUCTS:**

Proteinase K, Recombinant, Molecular Grade (Cat. No. (9210) Benzo-Endonuclease (Cat. No. 9253) RNaseOFF ribonuclease Inhibitor (Cat. No. M1238) RNase A (Cat. No. M1227)

Benzonase, E. Coli Recombinant (Cat. No. 7680)

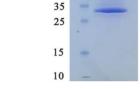


Fig A. Recombinant Benzo-Endonuclease loaded on SDS-PAGE.

FOR RESEARCH USE ONLY! Not to be used on humans.