

EZSolution™ Benzo-Endonuclease

ALTERNATE NAMES:	Binuclease; <i>Serratia marcescens</i> binuclease; unrestricted endonuclease
CATALOG NO.:	9215-10, -50
AMOUNT:	10 kU, 50 kU
SOURCE:	<i>Serratia marcescens</i> gene
MOL. WEIGHT:	30 kDa
FORM:	Liquid
FORMULATION:	In 20 mM Tris-Cl (pH 8.0), 2 mM MgCl ₂ , 2 mM NaCl, 50% glycerol
ACTIVITY:	≥ 250 U/μL
SPECIFIC ACTIVITY:	≥ 1000 kU/mg protein
UNIT DEFINITION:	One unit of Benzo-Endonuclease will digest sonicated salmon sperm DNA to produce acid-soluble oligonucleotides equivalent to a ΔA ₂₆₀ nm 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 ²⁺
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 purification and DNA/RNA contamination from purified proteins.

APPLICATIONS:

- Purification of cell-derived particles such as viruses, AAV vectors or inclusion bodies
- Eliminates DNA and RNA contamination in vaccines, antibodies and other biological products
- 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)

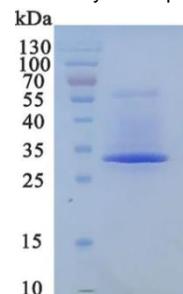


Fig A. Recombinant Benzo-Endonuclease loaded on SDS-PAGE.

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