

# Benzo-Endonuclease

04/21

<b>CATALOG #:</b>	9253-50 9253-100	50 kU 100 kU
<b>ALTERNATIVE NAMES:</b>	<i>Serratia marcescens</i> Binuclease; unrestricted endonuclease	
<b>MOL. WEIGHT:</b>	~30 kDa	
<b>PURITY:</b>	≥ 90% by SDS-PAGE	
<b>SOURCE:</b>	Genetically engineered <i>Serratia marcescens</i> endonuclease expressed in yeast cells	
<b>ENDOTOXIN LEVEL:</b>	Endotoxin free as determined by the LAL method	
<b>SPECIES:</b>	<i>Serratia marcescens</i>	
<b>FORM:</b>	Lyophilized Solid	
<b>RECONSTITUTION:</b>	Reconstitute in 20 mM Tris-Cl (pH 8.0), 2 mM MgCl <sub>2</sub> , 20 mM NaCl.	
<b>SPECIFIC ACTIVITY:</b>	≥ 1000 kU/mg protein The optimum temperature is 37 °C. The temperature range for enzyme activity is 0~42 °C.	
<b>ACTIVITY:</b>	≥ 20 kU/mg lyophilized powder	
<b>UNIT DEFINITION:</b>	One unit of Benzo-Endonuclease 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.	
<b>pH RANGE:</b>	6-10. Optimal pH is 8.	
<b>STORAGE CONDITIONS:</b>	Store at -20 °C or -80 °C. After reconstitution, divide into small aliquots and store at -20 °C or -80 °C. Avoid repeated freeze-thaw cycles.	
<b>DESCRIPTION:</b>	Benzo-Endonuclease is a genetically engineered endonuclease from <i>Serratia marcescens</i> gene that can digest 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. Benzo-Endonuclease reduces nucleic acid load and viscosity in cell lysates during purification to facilitate the filtration/ultrafiltration of solutions, reduces processing time, improves the separation of pellets and supernatants in centrifugations and increases the efficiency of chromatographic purification, resulting in significantly higher yield and purity of cell-derived particles such as viruses, AAV vectors or inclusion bodies. The enzyme is activated by 10 mM Mg <sup>2+</sup> .	

## APPLICATIONS:

- Eliminates DNA and RNA contamination in vaccines, antibodies and other biological products

## RELATED PRODUCTS:

Proteinase K, Recombinant, Molecular Grade (Cat. No. 9210)  
 EZSolution™ Benzo-Endonuclease (Cat. No. 9215)  
 RNaseOFF ribonuclease Inhibitor (Cat. No. M1238)  
 RNase A (Cat. No. M1227)  
 Benzonase, E. Coli Recombinant (Cat. No. 7680)

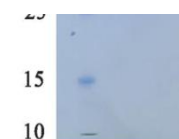
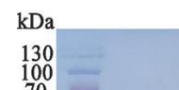


Fig A. Recombinant Benzo-Endonuclease loaded on SDS-PAGE.

**FOR RESEARCH USE ONLY! Not to be used in humans.**