Benzo-Endonuclease

04/21

CATALOG #: 9253-50 50 kU
9253-100 100 kU

ALTERNATIVE NAMES: *Serratia marcescens* Binuclease; unrestricted endonuclease

MOL. WEIGHT: ~30 kDa

PURITY: ≥ 90% by SDS-PAGE

SOURCE: Genetically engineered *Serratia marcescens* endonuclease expressed in yeast cells

ENDOTOXIN LEVEL: Endotoxin free as determined by the LAL method

SPECIES: *Serratia marcescens*

FORM: Lyophilized Solid

RECONSITUTION: Reconstitute in 20 mM Tris-Cl (pH 8.0), 2 mM $MgCl_2$, 20 mM NaCl.

SPECIFIC ACTIVITY: ≥ 1000 kU/mg protein
The optimum temperature is 37 °C. The temperature range for enzyme activity is 0~42 °C.

ACTIVITY: ≥ 20 kU/mg lyophilized powder

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.

pH RANGE: 6-10. Optimal pH is 8.

STORAGE CONDITIONS: 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.

DESCRIPTION: Benzo-Endonuclease is a genetically engineered endonuclease from Serratia marcescens 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^{2+}.

APPLICATIONS:

- Purification of cell-derived particles such as viruses, AAV vectors or inclusion bodies
- Chromatography or two-dimensional electrophoresis (protein mapping)
- Sample preparation for ELISA
- Eliminates DNA and RNA contamination in vaccines, antibodies and other biological products

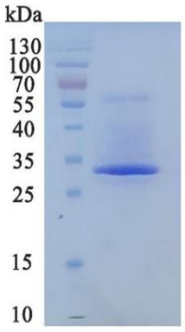

Fig A. Recombinant Benzo-Endonuclease loaded on SDS-PAGE.

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)

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