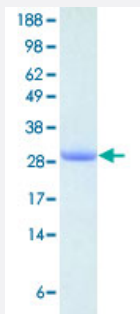


Bioactive

TurboNuclease

Catalog # P5381 Size 50000 Units

Applications



Result of activity analysis

Result of activity analysis

□

50 ug of salmon sperm DNA was incubated with the indicated units of TurboNuclease at 37°C for 30 minutes in a buffer of 50 mM Tris-HCl, pH 8.0 and 1 mM MgCl₂. DNA digestion was check by agarose gel electrophoresis.

Specification

Product Description	<i>Serratia macescens</i> extracellular endonuclease expressed in <i>Escherichia coli</i> .
Biological function	TurboNuclease (aka Benzonase) is a homodimer endonuclease nonspecifically hydrolyzes both single- and double-stranded nucleic acids (DNA and RNA) to 5'-phosphorylated oligonucleotides of 1-4 bases in length.
Host	<i>Escherichia coli</i>
Theoretical MW (kDa)	27 (monomer)
Form	Liquid
Preparation Method	<i>Escherichia coli</i> expression system

Concentration	250 Units/ul
Purity	> 99% (no detectable protease activity)
Endotoxin Level	< 0.1 EU/1,000 units as determined by Endo-Safe LAL Assay.
Activity	1 unit of TurboNuclease converts 1.0 OD260 of salmon sperm DNA into acid-soluble nucleotides in 30 minutes at 37°C in a reaction buffer of 50 mM Tris-HCl, pH 8.0 and 1 mM MgCl ₂ . This corresponds to complete digestion of 50 ug of salmon sperm DNA into oligonucleotides. TurboNuclease has similar specific activity as Benzonase.
Quality Control Testing	Loading 3 ug protein in SDS-PAGE
Recommend Usage	Used to digest nucleic acids and to reduce viscosity during protein purification and sample preparation.
Storage Buffer	In 50 mM Tris-HCl, pH 8.0, 50 mM NaCl, 5 mM MgCl ₂ and 50% Glycerol
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis 50 ug of salmon sperm DNA was incubated with the indicated units of TurboNuclease at 37°C for 30 minutes in a buffer of 50 mM Tris-HCl, pH 8.0 and 1 mM MgCl ₂ . DNA digestion was checked by agarose gel electrophoresis.

Applications

- Enzyme Activity

Publication Reference

- [Tail proteins of phage SU10 reorganize into the nozzle for genome delivery.](#)

Marta Šiborová, Tibor Füzik, Michaela Procházková, Jiří Nováček, Martin Benešik, Anders S Nilsson, Pavel Plevka.
Nature Communications 2022 Sep; 13(1):5622.

Application: Enzyme, Bacteria, E.coli

- [H3K9 dimethylation safeguards cancer cells against activation of the interferon pathway.](#)

Anne Meldgaard Hansen, Ying Ge, Mikkel Bruhn Schuster, Sachin Pundhir, Janus Schou Jakobsen, Adrija Kalvisa, Marta Cecylia Tapia, Sandra Gordon, Francesca Ambri, Frederik Otzen Bagger, Deo Pandey, Kristian Helin, Bo Torben Porse.
Science Advances 2022 Mar; 8(11):eabf8627.

Application: Enzyme, Mouse, Mouse acute myeloid leukemia