Active Recombinant Serratia marcescens Universal Nuclease

Cat. No. Nuclease-37S **Lot. No.** (See product label)

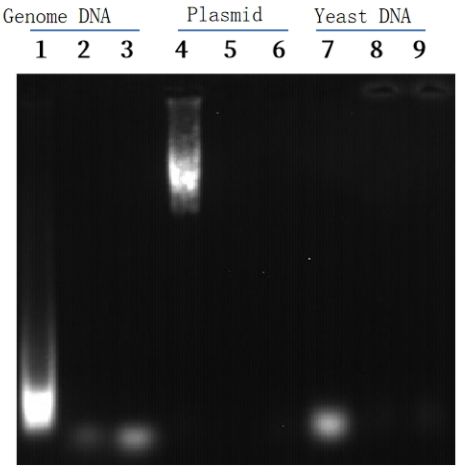
SPECIFICATION

Product Overview	Universal Nuclease is an endonuclease derived from Serratia marcescens and is expressed by yeast system, and is suitable for scenarios where nucleic acids need to be removed from various proteins and other biological products. The reaction conditions are mild, and it has a very high nucleic acid removal efficiency. Function Testing: Complete degradation of DNA Protease Activity: Not detected
Species	Serratia marcescens
Source	Yeast
Description	Universal Nuclease can completely digest all forms of DNA and RNA (including single-stranded, double-stranded, linear, and circular) into 5'-monophosphorylated oligonucleotides with a length of 3-5 bases. It has no protease activity and high specificity.
Form	Transparent liquid. Colorless
Purity	≥ 95% by SDS-PAGE
Bio-activity	≥ 250 U/μL
Advantages	1. It features mild reaction conditions and high stability. 2. There are two types available, His Tag and Tag free, which are suitable for a variety of purification methods.

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Unit definition	One unit (U) of the enzyme is defined as the amount that can digest sonicated salmon sperm DNA into acid-soluble oligonucleotides equivalent to 1.0 ΔA260 within 30 minutes at pH 8.0 and 37 centigrade in a reaction volume of 2.625 mL.
Endotoxin	< 0.2 EU/1000U
Usage	1. Universal Nuclease can be added during cell lysis to decrease the viscosity of the lysate. The recommended dosage is 25 U/mL. 2. It can eliminate residual nucleic acids from protein samples during purification or from finished protein products. The recommended dosage is also 25 U/mL. 3. The activity of this product requires 1-2 mM Mg2+. Meanwhile, avoid having the NaCl concentration exceed 100mM.
Applications	1. Cell lysis 2. Protein chromatography 3. Nucleic acid removal from biological products
Note	1. Try to avoid freeze-thaw cycles of this product after receipt; 2. Please wear lab coat and disposable gloves when using; 3. This product should not be used directly for clinical diagnosis and treatment.
Stability	This product should be stored at -20 centigrade and can be stored for at least 24 months.
Storage	Store at -20 centigrade.
Storage Buffer	20 mM Tris-HCl, 2 mM MgCl2, 20 mM NaCl, 50% glycerol, pH = 8.0
Shipping	Dry Ice

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When digesting different types of nucleic acids, the test results show that our Universal Nuclease can achieve complete digestion, just like that of well-known brands. Digestion of different nucleic acid (Add 5 U/mL enzyme) Lane 1: Control, without universal nuclease; Lane 2: With Universal Nuclease (Ours); Lane 3: With universal nuclease (A well-known brand); Lane 4: Control, without universal nuclease; Lane 5: With Universal Nuclease (Ours); Lane 6: With universal nuclease (A well-known brand); Lane 7: Control, without universal nuclease; Lane 8: With Universal Nuclease (Ours); Lane 9: With universal nuclease (A well-known brand);

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