

Features

Salt Active GENIUS™ Nuclease, premium grade is designed for preclinical stage, has more comprehensive QC testing (such as HCP and so on) and tighter specifications based on the following GENIUS features.

Salt Active GENIUS™ Nuclease, premium grade has the same activity and performance with GMP Grade Salt Active Nuclease, which enables a seamless transition from preclinical development to clinical phases. By using Salt Active GENIUS™ Nuclease, premium grade in your development phase you can easily transit into clinical and commercial phases and avoid needing to amend your manufacturing process and undertake comparability studies.

Product Details

Salt Active GENIUS™ Nuclease is developed with ACRObiosystems' unique enzyme AI evolution platform based on wild-type Serratia marcescens endonuclease. It is capable of maintaining high specific activity to effectively degrade nuclei acids in any form across a broad salt concentration range (0-500mM NaCl), especially high salt up to 500mM NaCl, which makes it suitable for nucleic acid removal in processes that of higher salt conditions. The enzyme is a non-specific nuclease with high specific activity, degrading single- and double-stranded nucleic acids in any form (single stranded, double stranded, linear, circular, and supercoiled). It hydrolyzes internal phosphodiester bonds present between the nucleotides to 5'- phosphorylated oligonucleotides of 3-5 bases in length.

Application

Elimination of nucleic acids from biologics, suitable for samples with 0-500 mM salt in presence of 5-10 mM Mg++

- viral vaccine development process
- viral vector development process for cell and gene therapy (CGT)
- Other biologics development processes

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

Enzyme Activity

≥250 U/μL

Host Cell Protein

<0.05 ng/μg of protein tested by ELISA.

Protease Activity

Negative.

Sterility

Negative

Mycoplasma

Negative.

Endotoxin

Less than 0.01 EU per μg by the LAL method / rFC method.

Formulation

Supplied as 0.2 μm filtered solution in 25 mM Tris, 500 mM NaCl, 5 mM MgCl2, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

Storage

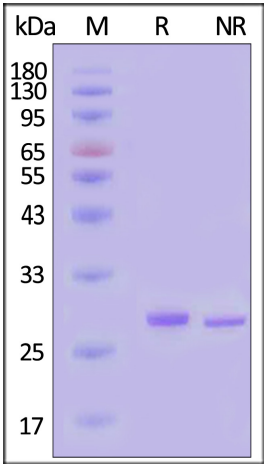
This product is stable after storage at:

- The product MUST be stored at -20°C or lower upon receipt;
- -20°C for 24 months under sterile conditions.

SDS-PAGE

SEC-HPLC

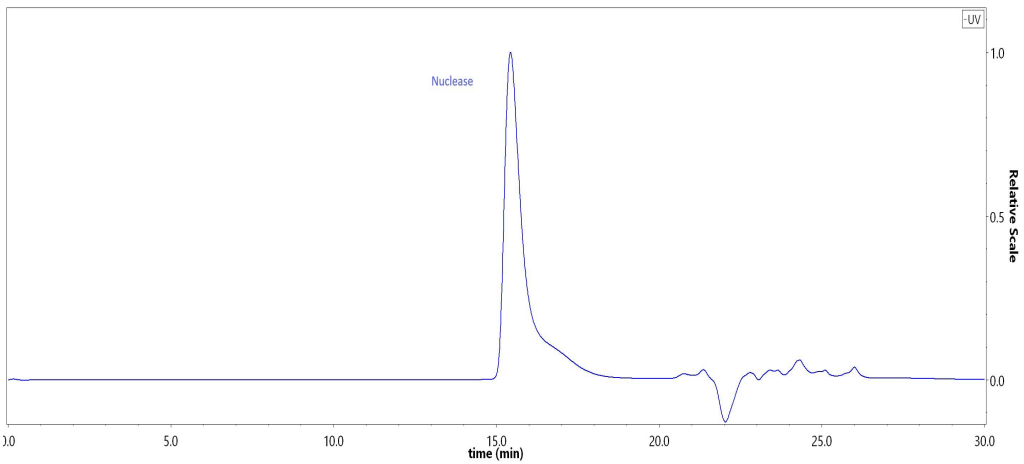




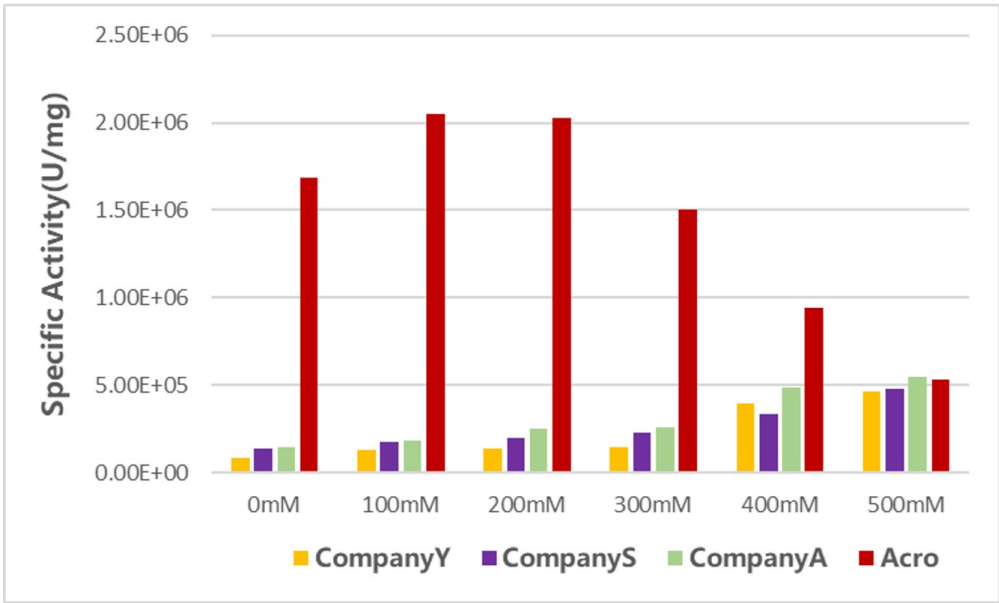
The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity

Specific activity for Salt Active GENIUS™Nuclease, premium grade is measured under standard assay conditions. The specific activity of Salt Active GENIUS™Nuclease, premium grade is >4.3E+05 unit/mg at 500 mM salt concentration (QC tested). One unit will digest sonicated salmon sperm DNA to acid-soluble oligonucleotides equivalent to a ΔA260 of 1.0 in 30 min at pH 8.0 at 37 °C, which corresponds approximately to complete digestion of 37 μg DNA (QC tested).



The purity of Salt Active GENIUSNuclease, premium grade (Cat. No. NUE-S5117) was greater than 95% as determined by SEC-HPLC.



Specific activity of Salt Active GENIUS™Nuclease, premium grade at different salt concentrations.

