

**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<sup>++</sup>

- 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.

**Formulation**

Supplied as 0.2 μm filtered solution in 25 mM Tris, 500 mM NaCl, 5 mM MgCl<sub>2</sub>, 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**

Discounts, Gifts,  
and more!

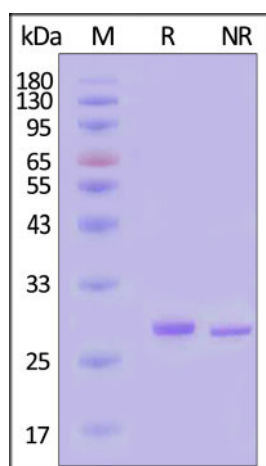


# Salt Active GENIUS™ Nuclease, premium grade

Catalog # NUE-S5117



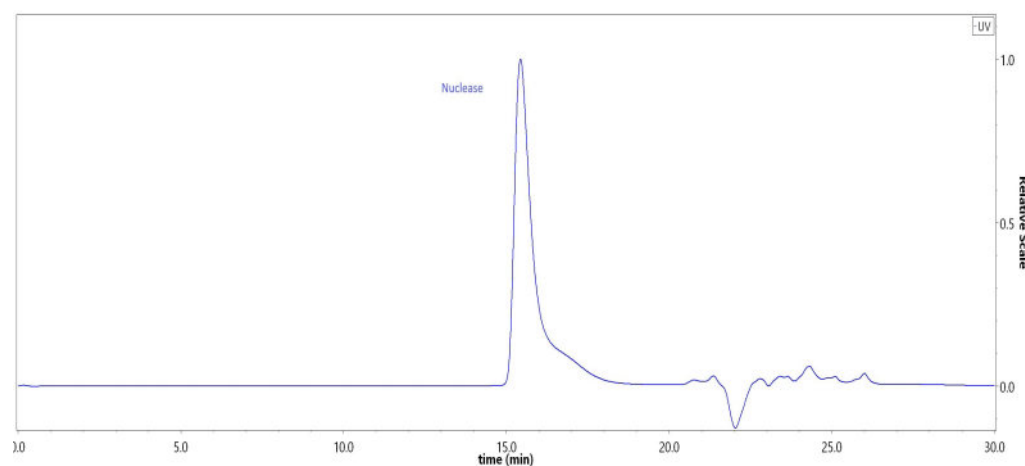
BIOSYSTEMS  
**Acro**



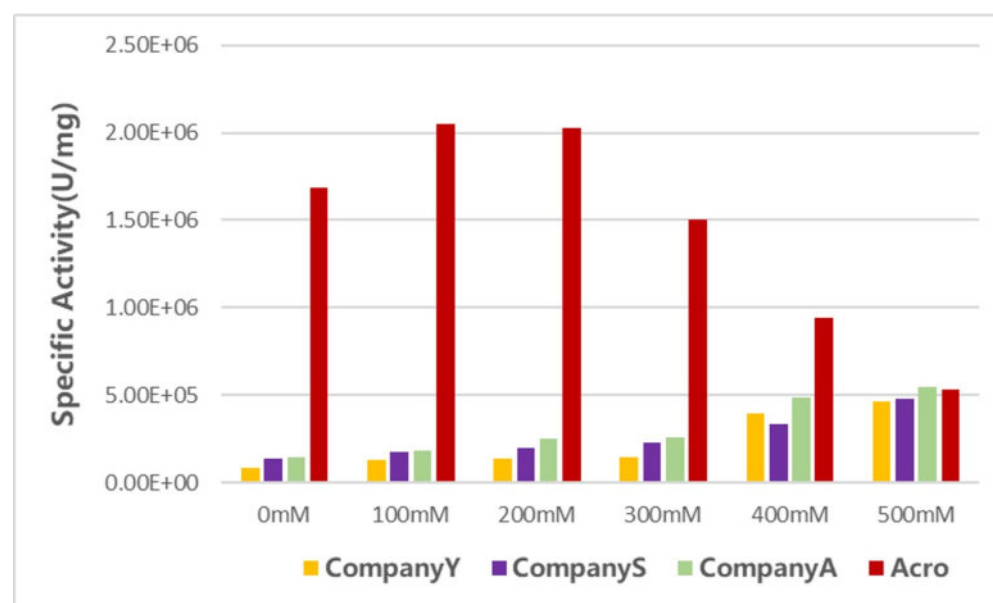
The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## 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  $\Delta A_{260}$  of 1.0 in 30 min at pH 8.0 at 37 °C, which corresponds approximately to complete digestion of 37  $\mu$ g DNA (QC tested).



The purity of Salt Active GENIUS Nuclease, 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.

## Clinical and Translational Updates

Discounts, Gifts,  
and more!

