

PRODUCT INFORMATION

NuCLEANase[®], tech grade

Recombinant *Serratia marcescens* endonuclease, liquid

Recombinant *Serratia marcescens* endonuclease produced by microbial fermentation with a *Bacillus* species. The production strain used in the manufacturing of the product is a Genetically Modified Organism (GMO) of safety level S1.

NuCLEANase, tech grade is supplied as brownish liquid formulated in potassium phosphate buffer pH 8.0 and 50 % (v/v) glycerol. Color can vary from batch to batch. Color intensity is not an indication of enzyme activity or quality.

Typical applications

The efficient degradation of nucleic acids can be a crucial step in many industrial applications.

c-LEcta's **NuCLEANase** is a versatile endonuclease that provides cost-efficient solutions therefor, for example, but not limited to:

- Residual host DNA removal from biotech products for regulatory compliance
- Viscosity reduction and efficient purification during down-stream processing of fermentation processes
- Release and/or production of flavoring nucleotides
- Improved bioavailability of nucleotides in certain feed products
- DNA degradation for biofilm removal or prevention

Quality and Certificates

NuCLEANase, tech grade is manufactured without the use of antibiotics and without raw materials from animal origin.

c-LEcta is a registered Food Business Operator and ISO 9001 / EXCiPACT certified.



NuCLEANase[®] is a registered trademark of c-LEcta GmbH in the European Union (EU), United States of America (USA), United Kingdom (UK), China (CN) and India (IN).

It shall be the responsibility of the user to determine the suitability and legal status of this product for the intended use. The content of this document is subject to change without further notice and does not constitute a representation or warranty of any kind.

Storage Conditions and Stability

NuCLEANase, tech grade is to be stored at $-20\text{ °C} \pm 5\text{ °C}$. The product is stable for a period of at least 19 months from the date of product release under proper storage conditions.
Shipping temperature may differ from storage temperature without affecting product quality.

Enzyme Characteristics

The enzyme catalyzes the hydrolysis of phosphodiesterases of all forms of DNA and RNA like single-stranded, double-stranded, linear, circular or supercoiled forms into smaller oligonucleotides of mainly 2-4 base pairs.

Molecular weight	27 kDa (per monomer)
pH optimum	pH 8.0 - 9.5
Temperature optimum	35 - 40 °C
Isoelectric point (pI)	~ pH 6.85
Cofactor	Mg ²⁺

Unit definition

One unit will digest salmon sperm DNA to acid-soluble oligonucleotides equivalent to a $\Delta A_{260\text{nm}}$ of 1.0 in 30 min at pH 8.0 at 37 °C.

Sales and Contact

Art. No.	Size	Activity
20804-1S	Sample	≥ 30 MU/L
20804-1-3M	3 MU	≥ 30 MU/L
20804-1-15M	15 MU	≥ 30 MU/L
20804-1	other sizes	≥ 30 MU/L

c-LEcta GmbH
Perlickstraße 5
04103 Leipzig
Germany
Phone: +49 341 355 214-0
Fax: +49 341 355 214-33
Mail: contact@nuclease.com