Manual

Salt tolerant nuclease

Research use only.

This product is intended for Research Use Only. This product is manufactured under ISO 13485:2016 Quality System Requirements and is available for use as a Raw Material for use in IVD applications. Please contact LGC for further details. For SDS and Certificate of Analysis please contact techsupport@lgcgroup.com.

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Manual

Salt tolerant nuclease

1. Product description

Salt tolerant nuclease is a broad-spectrum nuclease isolated from a psychrophilic marine bacterium. The enzyme is expressed in a recombinant microbial system to allow for enhanced production and purification to homogeneity. The enzyme is designed for reducing host genomic DNA contamination during production of viral particles (e.g. AAV) or recombinant proteins but can also be used in other molecular biology applications where complete nucleic acid removal is required. Under standard conditions (see below), salt tolerant nuclease will degrade both single-stranded and double-stranded nucleic acids (DNA and RNA).

2. Concentration

Salt tolerant nuclease: 25 U/µL

3. Storage and handling

Store at -20 °C upon arrival until provided expiration date. See individual component labels for additional storage recommendations.

4. Unit definition

One unit is defined as the amount of enzyme required to increase the 260 nm absorbance (A260) by 1.0 absorbance unit (a.u.) in 30 minutes at 37 °C, using 50 µg/mL calf thymus DNA in a buffered solution of 25 mM Tris-HCl (pH 8.5), 500 mM NaCl, and 5 mM $MgCl_2$.

5. Recommended use conditions

Salt tolerant nuclease activity is optimal in buffered solutions pH 8-10 and NaCl concentrations between 200-500 mM with temperatures between 25-35 °C. The enzyme retains activity down to pH 7 in the absence of salt and in temperatures as low as 4 °C but requires additional incubation time (16-24 hours) to complete substrate digestion. Digest solutions should contain <10% glycerol to minimise enzyme inhibition. If necessary, the enzyme can be reductively inactivated after use by addition of 10 mM DTT or 5 mM TCEP (final concentration) to the solution.

6. Ordering information

Item number	Size
300STN-1	25,000 units

7. Further support

If you require any further support, please do not hesitate to contact our Technical Support Team: techsupport@lgcgroup.com

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