

Nuclease, S1

I.U.B.: 3.1.30.1

Nuclease S1 isolated from certain *Neurospora* and *Aspergillus* species specifically hydrolyzes both terminal and internal phosphodiester bonds of single-stranded DNA and RNA. Nuclease S1 has a molecular weight of approximately 34 kDa and exists as a monomer. The optimum pH range is 4.0–4.6, and it is activated by Zn^{2+} and/or Ca^{2+} . Inhibitors are EDTA, citrate and high concentrations of SDS.

Stability/Storage: For long term storage in solution, for up to six months, dilute NUCSI to ≥ 6000 u/ml in water and freeze in aliquots. Dilute solutions can be stabilized by adding 0.1% albumin (Worthington Code: BSANF) and 10% glycerol.

Unit Definition: One Unit hydrolyzes one microgram of denatured calf thymus DNA per minute at 37° C, pH 4.6.

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Code: **SINUC**

Chromatographically purified. Specific for single-stranded DNA (ssDNA) degradation. Activity on native (ds) DNA undetectable under the assay conditions. A frozen solution in 30mM sodium acetate, pH 4.6, 50mM NaCl, 1mM $ZnCl_2$, and 50% glycerol. Store at -20° C.

Source: *Aspergillus oryzae*

Minimum Activity: $\geq 100,000$ to 500,000 units per ml

Cat#	Pack Size
LS04070	10 ku
LS04072	50 ku
LS04073	Bulk