

**Certificate of Analysis**

**Product:** S1 Nuclease

**Source:** *Aspergillus oryzae*

**Code:** MB-110-0010

**Lot #** 20244

**Size:** 10,000 units

**Physical State:** Liquid (sterile filtered)

**Enzyme Concentration:** 436,130 units/ml

**Buffer Composition:** A solution in 30 mM Sodium Acetate, 50 mM Sodium Chloride, 1 mM Zinc Chloride and 50% (v/v) glycerol, pH 4.6.

**Application(s):** Hydrolyzes terminal and internal phosphodiester bonds of single stranded DNA and RNA. Activity on native (ds) DNA undetectable under assay conditions. Useful to eliminate non-annealed hairpin loops in DNA-RNA or DNA-DNA duplexes in hybridization studies and recombination experiments. Chromatographically purified.

**Storage Conditions:** Store vial at  $-20^{\circ}\text{C}$  or colder. Expiration date is six (6) months from date of opening vial.

**Unit Definition:** One unit renders acid soluble 1  $\mu\text{g}$  of denatured DNA (ssDNA) per minute at  $37^{\circ}\text{C}$ , pH 4.6. This assay is based on the release of acid soluble products from ssDNA through hydrolysis. One (1)  $\mu\text{g}$  of acid soluble products is equivalent to 0.022  $A_{260}$  units.

**Other Enzymatic Activity:** Assay for ds DNA degradation – none detected after incubation of 2  $\mu\text{g}$  Lambda DNA with 10 units of S1 Nuclease for 1 hour at  $37^{\circ}\text{C}$ .

**Note:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

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