

Product Information

Deoxyribonucleic acid, single stranded from salmon testes

Catalog Number **D7656**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 68938-01-2
Synonym: DNA

Product Description

This is a ready to use, concentrated DNA solution for use in hybridization studies to block non-specific binding of probes to membranes.^{1,2}

This blocking reagent contains sonicated DNA from salmon testes. After sonication, it is extracted with phenol-chloroform solution, and precipitated with ethanol. Sonication shears the large molecular mass DNA to produce fragments in a range of 587 to 831 base pairs. This range has been shown to be the most effective for hybridizations. The material is monitored during sonication by electrophoresis in order to determine the mass range. Once sonication is complete, the material is denatured by boiling.

DNA from salmon testes is 41.2 mole % G-C and 58.8 mole % A-T.³ An absorbance of 1.0 at 260 nm corresponds to $\sim 50\text{ }\mu\text{g}$ of double-stranded DNA.⁴

λ_{max} : 259 nm (100 mM phosphate buffer, pH 7.0)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the liquid product at $-20\text{ }^{\circ}\text{C}$.

Procedure

The concentrated DNA solution is supplied ready to use. However, it will reanneal upon standing at room temperature, so it is recommended to boil the solution for 10 minutes and then cool **on ice** for at least 5 minutes prior to use. Cooling on ice will reduce the chances of reannealing, as it is more likely to reanneal if cooled at room temperature.

References

1. Molecular Cloning: A Laboratory Manual, 2nd ed., Sambrook, J.F. et al., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1989), pp. 9.48-9.49, 13.15.
2. Silhavy, T. et al., Experiments with Gene Fusions, (Cold Spring Harbor, NY: 1984) p. 195.
3. Marmur, J., and Doty, P., Determination of the base composition of deoxyribonucleic acid from its thermal denaturation temperature. J. Mol. Biol., **5**, 109-118 (1962).
4. Molecular Cloning: A Laboratory Manual, 2nd ed., Sambrook, J.F. et al., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1989), pp. E5.

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