PRODUCT INFORMATION

Nucleic Acid Drying Stabiliser – 10 ml
PRODUCT CODE: X-STB-0005
STORAGE: 2 - 8 °C, protect from sun light

PRODUCT DESCRIPTION

BioThinX proprietary nucleic acid drying stabiliser acts like a liquid glass, inhibiting nucleic acid degradation. During drying of DNA and RNA samples, the reagent forms an amber-like matrix that provides long-term protection of embedded molecules even at ambient temperature.

Vitrification-drying is used to stabilise the nucleic acid integrity and is suitable for long-term storage in every aspect of biological nucleic acid sampling and bio banking.

PRECAUTIONS AND DISCLAIMER

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

FORMULATION

Nucleic Acid Drying Stabiliser is stable for shipping at ambient temperature. The product contains a HEPES, NaCl, carbohydrate buffer base at neutral pH.

PREPARTION AND HANDLING

To stabilize nucleic acid samples in dry form add between one parts of the stabilizer solution to one part nucleic acid sample. Mix gently. Aliquot appropriate volumes in vials or reaction vessels.

The volume per container should be low enough to allow the maximum surface area to be exposed to the air during drying. Air dry the nucleic acid/stabiliser mixture at 20-37 °C with activated silica gel or molecular sieve until completely dry. Store the final product airtight.

STORAGE / STABILITY

For long term storage the product should be stored between 2-8 °C.

RECOMMENDED DILUTION

Ready-to-use solution, use one parts of the stabilizer solution to one part nucleic acid sample.

BACKGROUND REFERENCES

1. Hengherr, S., et al., High-temperature tolerance in anhydrobiotic tardigrades is limited by glass transition, Physiol. Biochem. Zool., 82, 749-755 (2009).
2. Koubaa, S., er al., Structural properties and enzyme stabilization function of the intrinsically disordered LEA_4 protein TdLEA3 from wheat, Nature Scientific Reports, (9) Article number: 3720 (2019).
3. Carpenter, J., F., Comparison of solute-induced protein stabilization in aqueous solution and in the frozen and dried states, J. Dairy Sci. 73, 3627-3636 (1990)
4. Killian, M., S., Stabilization of dry protein coatings with compatible solutes, Biointerphases, 13(6), 06E401 (2018).

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