



PRODUCT INFORMATION

Liquid Protein Stabiliser – 50 ml

PRODUCT CODE: X-STB-0003

STORAGE: 2 - 8 °C, protect from sun light

PRODUCT DESCRIPTION

BioThinX proprietary Liquid Protein Stabiliser protects biological activity in liquid protein formulations by inhibiting protein aggregation, denaturation, and microbial contamination. The method is based on the thermodynamic effect of compatible solutes exclusion, which shifts native proteins toward more compact conformations.

Liquid protein stabilisation is used to stabilise the structure and biological activity of purified proteins and complex biological samples, and is applicable for prolonged storage of antibodies, enzymes, or biomarkers in liquid formulations to avoid detrimental freeze thaw cycles.

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

Liquid Protein Stabiliser is stable for shipping at ambient temperature. The product contains a HEPES, NaCl, small molecule buffer base at neutral pH.

PREPARATION AND HANDLING

To stabilize protein formulations in liquid form add between 1-10 parts of the stabilizer solution to one part protein solution. The optimal ratio should be titrated empirically. Mix gently.

Store the Liquid protein/stabiliser mixture at 2-8 °C in airtight vials.

STORAGE / STABILITY

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

RECOMMENDED DILUTION

Ready-to-use solution, use 1-10 parts of the stabilizer solution to one part protein solution.

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., et 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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