

ANTIBODY PROTEIN STABILISATION KIT (STKAB)

Introduction

The stabilisation kit you have received is designed for the stabilisation of antibodies in solution and in the dry state. The instructions below are to be used as a guideline only and the solutions may need to be optimised for your particular antibody(s). If you have any problems or need further advice then please do not hesitate to contact us.

Kit Contents

9 vials each containing 20ml of a double strength stabilisation formulation, made up in a non-sterile double distilled water solution, 1 health & safety data sheet, 1 kit instruction sheet.

Recommended Method of Use

Prior to use, the stabilisation solutions should be checked for compatibility with your working buffers before the addition of the antibody solution. This includes checking the final pH of the solutions when added to the antibody solution. pH may have to be adjusted accordingly, normally between pH 6-8. This is only a rough guideline as different antibodies possess different buffer salt requirements, ionic strength preferences and pH optima. Generally a good starting point is Tris/HCL pH 7.0 or Bis-Tris/HCL pH 6.0 (final concentration once diluted with antibody solution, 50mM). Lower salt concentrations should be used if freeze drying or vacuum drying. For solution stability, the stabiliser solution should be used at a 1 to 1 dilution with the buffer of choice containing the required antibody concentration. For dry stability, the stabiliser solution should be used at a 1 to 4 dilution with the buffer of choice containing the required antibody concentration. This is only to be used as a rough guideline as these solutions can be used at considerably different concentrations depending on the antibody concentration to be stabilised.

Storage Conditions & Shelf Life

At least 6 months Room Temperature
At least 1 year at 4°C
Frozen Kit 2 years at -20°C

Notes

1. If possible all previous stabilisers and other additives should be removed from your antibody solution, as they may be incompatible with these stabiliser solutions.
2. Ideally the antibody solution should be stored in a low ionic strength compatible buffer.
3. Ideally the final ionic strength of the formulation should be no more than 50mM, however good results have been obtained with final ionic strengths of 200mM for solution stability.
4. It is important to be aware that dilution of the stock solution with your antibody solution may alter the pH. This should be checked and adjusted accordingly

Optimisation

Once diluted, as suggested above, the stabilisation formulation should be in 50mM Tris/HCl pH 7 or 50mM Bis-Tris/HCl pH 6. The final molarity and pH of the buffer can be varied to suit your particular antibody(s). The ratio of stabiliser stock solution to antibody solution may also be varied in order to optimise the stability.

If dry stability is required, the above formulations can be subjected to a controlled vacuum drying cycle or freeze drying cycle and the stability trials should be carried out in the dry state.

(N.B. Safety considerations: Wear disposable gloves and safety glasses while working with reagents and thoroughly wash hands after handling. Refer to product labels and Material Safety Data Sheet(s) for additional information as appropriate.)

[Although this product has been tested on a wide variety of proteins in solution and in the dry state with wide ranging applications, Applied Enzyme Technology Ltd. cannot anticipate all the possible requirements for antibody stabilisation by clients, and ultimately cannot be held liable for non-stabilisation of a protein under such circumstances.]