Protein Stabilizing Cocktail

89806  Protein Stabilizing Cocktail (4X), 10 ml

Storage: Upon receipt store at 4°C. Product is shipped at ambient temperature.

Introduction
The Protein Stabilizing Cocktail is a versatile stabilizing solution that increases the shelf life of purified or partially purified proteins during routine storage. The proprietary formulation of low molecular weight and naturally occurring molecules helps protect proteins from environmental stresses that can otherwise lead to enzyme inactivation, aggregation and freeze/thaw damage.

The Protein Stabilizing Cocktail is provided as an easily pipettable, buffered 4X concentrate. After dilution in Protein Stabilizing Cocktail, the protein can be stored for long periods without losing significant activity. Although the degree of stabilization is protein-specific, this cocktail significantly stabilizes most proteins compared with conventional buffer alone. The Protein Stabilizing Cocktail is non-toxic and does not destabilize biomolecules; however, if desired, all cocktail components can be removed by dialysis or desalting before use in downstream assays.

Procedure for Diluting Protein Stabilizing Cocktail into Protein Solution
1. Dilute the 4X Protein Stabilizing Cocktail four-fold in protein solution. For example, add one part Protein Stabilizing Cocktail to three parts protein solution. Diluting the 4X Protein Stabilizing Cocktail two-fold may provide greater stabilization for some proteins.
2. Store the stabilized protein using typical conditions for the specific protein of interest (e.g., 4°C or -20°C).
3. Options:
   • Protein Stabilizing Cocktail does not contain reducing agents. If the protein is known to contain essential sulphydryl (–SH) groups, add a reducing agent, such as dithiothreitol (DTT), to a final concentration of 1-5 mM.
   • To help avoid metal-catalyzed oxidation of –SH groups, add a metal chelator, such as EDTA, to a final concentration of 1-5 mM.
   • To help stabilize dilute protein solutions, add a carrier protein, such as BSA, at a final concentration of 0.1-0.25 mg/ml.

Additional Information
A. Please visit the web site for additional information including the following:
   • Tech Tip protocol: Protein Stability and Storage
   • Tech Tip: An Overview of Dialysis
   • Tech Tip: Extinction Coefficients Guide
Related Thermo Scientific Products

89890  Zeba™ Desalt Spin Columns, 2 ml, 25 columns, for 200-700 µl samples
89892  Zeba™ Desalt Spin Columns, 5 ml, 25 columns, for 500-2,000 µl samples
89894  Zeba™ Desalt Spin Columns, 10 ml, 25 columns, for 700-4,000 µl samples
66335  Slide-A-Lyzer® Dialysis Cassettes (3.5K MWCO), 10 units, 10 buoys, 10 syringes
69558  Slide-A-Lyzer® MINI Units (3.5K MWCO), 10 units plus 25-unit float buoy
20291  No-Weigh™ Dithiothreitol (DTT), 48 × 7.7 mg microtubes
17892  EDTA (ethylenediaminetetraacetic acid, disodium dihydrate), 500 g
23210  Bovine Serum Albumin (BSA) Standard, 2 mg/ml, 50 ml

References


This product (“Product”) is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts (“Documentation”) and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product (“Buyer”).

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer’s exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current versions of product instructions are available at www.thermo.com/pierce. For a faxed copy, call 800-874-3723 or contact your local distributor.

© 2010 Thermo Fisher Scientific Inc. All rights reserved. Unless otherwise indicated, all trademarks are property of Thermo Fisher Scientific Inc. and its subsidiaries. Printed in the USA.