

Reducing Agent TCEP Protein Solving Buffer Set PSB/TCEP

1 Content

Reducing Agent TCEP	
REF	740395.107
Reducing Agent TCEP	107 mg

Protein Solving Buffer Set PSB/TCEP	
REF	740941
Reducing Agent TCEP	107 mg
Buffer PSB	7.5 mL

2 Product description

The Reducing Agent TCEP (Tris(2-carboxyethyl) phosphine hydrochloride) is an odorless alternative to β -mercaptoethanol and dithiothreitol commonly used in molecular biology for the reduction of disulfide bonds in protein.

TCEP is a trialkylphosphine, which are potent reductants for disulfides and are essentially unreactive toward other functional groups commonly found in proteins.

After reconstitution of MACHEREY-NAGEL TCEP, the solution can be used as odorless alternative to β -mercaptoethanol and dithiothreitol in molecular biology applications for the reduction of disulfide bonds in protein.

PSB-TCEP solution can be used as an odorless substitute for commonly known Laemmli buffer for dissolving of protein pellets for subsequent SDS-PAGE analysis for protein quantification with the MACHEREY-NAGEL Protein Quantification Assay (REF 740967.50).

3 TCEP specifications

107 mg TCEP – pH adjusted to approximately 6.8 with HCl. Dried material.

4 Storage conditions and preparation of working solutions

The unopened products can be stored at room temperature (15–25 °C) and are stable until: see package label.

Reducing Agent TCEP (REF 740395.107): Add **750 μ L of RNase-free H₂O** to the TCEP vial and incubate for several minutes at room temperature. Mix the vial to completely dissolve in order to obtain a 500 mM TCEP solution.

After reconstitution, the TCEP solution should be stored at -20 °C and is stable for at least six months.

Protein Solving Buffer Set PSB/TCEP (REF 740941): Transfer **7.5 mL PSB** from one vial to the vial of the Reducing Agent TCEP. Mix gently to avoid excessive foaming until the reducing agent is dissolved completely (this process will require several minutes). Protein Solving Buffer containing Reducing Agent TCEP: (50 mM) (PSB-TCEP) is stable for several days at room temperature and several months at 4 °C. For long term storage of PSB-TCEP, keep at -20 °C.

Note: If PSB-TCEP is turbid, warm up PSB-TCEP to > 25 °C before use until solution is completely clear (i.e., all precipitate is dissolved completely).

5 Safety instructions

When working with the Reducing Agent TCEP kit wear suitable protective clothing (e.g., lab coat, disposable gloves, and protective goggles).

For more information consult the appropriate Material Safety Data Sheets (MSDS available online at www.mn-net.com/msds).



Disposal

Dispose hazardous, infectious or biologically contaminated materials in a safe and acceptable manner and in accordance with all local and regulatory requirements.

6 Protocol

Reducing Agent TCEP (REF 740395.107): Dissolve the 107 mg TCEP in 750 μL water to obtain a 500 mM solution of approximately pH 6.8. Dissolving the material in water might take several minutes – mix several times.

A final concentration of 10–20 mM TCEP in common lysis buffers for RNA isolation (e.g. lysis buffers as in NucleoSpin[®] and NucleoMag[®] RNA isolation kits) is recommended.

For example, add 14 μL of 500 mM TCEP to 350 μL lysis buffer of NucleoSpin[®] RNA kits in order to obtain approximately 20 mM TCEP within the lysis buffer.

Protein Solving Buffer Set PSB/TCEP (REF 740941): Please refer to the relating NucleoSpin[®] kit's user manual (e.g., NucleoSpin[®] TriPrep, NucleoSpin[®] RNA/Protein, NucleoSpin[®] miRNA) for more detailed information.

7 Product use restriction / warranty

Reducing Agent TCEP and **Protein Solving Buffer Set PSB/TCEP** components are developed, designed, and sold for research purpose only. All goods have to be checked immediately upon receipt. Damage claims are only acceptable in writing within 8 working days of receipt of all the goods. In case of legitimate claims the buyer can only require replacement of the goods. If replacement is not possible, the buyer has the right to choose between alternative products with same value or refund. The buyer cannot claim further compensation. All returns must first be authorized by us in writing. We offer a one year warranty from date of delivery that our products will conform to applicable specifications set forth in the product specifications if not sold to persons set forth in § 13 of German Civil Code. In such a case, the provisions of the German Civil Code shall be valid.

This warranty does not cover defects in or damage to the products which are due to improper installation or maintenance, misuse, neglect or any use other than ordinary commercial application.

Any discharge from liability will be void if a defect results from a heavily negligent or intentional breach of contract or if the buyer will be bodily injured as a result from a negligent or intentional breach.

The seller shall not be liable for the goods being fit for a particular purpose unless otherwise agreed upon, to which the buyer intends to put them.

This warranty is strictly exclusive. Any further damage compensation is impossible.

MACHEREY-NAGEL MAKES no other warranty of any kind whatsoever, and SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES OF ANY KIND OR NATURE WHATSOEVER; DIRECTLY OR INDIRECTLY; EXPRESS OR IMPLIED; INCLUDING; WITHOUT LIMITATION; AS TO THE SUITABILITY; REPRODUCIBILITY; DURABILITY; FITNESS FOR A PARTICULAR PURPOSE OR USE; MERCHANTABILITY; CONDITION; OR ANY OTHER MATTER WITH RESPECT TO MACHEREY-NAGEL PRODUCTS OR THE SALE OF MACHEREY-NAGEL PRODUCTS.

If not superseded by these terms the current terms and conditions for the sale of goods (export version) are additionally valid.