

Nov 01, 2014

How to Make a 0.5M TCEP Stock Solution

DOI

<https://dx.doi.org/10.17504/protocols.io.cizuf5>



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DOI: <https://dx.doi.org/10.17504/protocols.io.cizuf5>

External link: <http://store.p212121.com/TCEP-HCl/>

Protocol Citation: Sean Seaver: How to Make a 0.5M TCEP Stock Solution. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.cizuf5>

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Protocol status: Working

Created: October 23, 2014

Last Modified: March 28, 2018

Protocol Integer ID: 313

Keywords: stock solution

Abstract

How to Make a 0.5M TCEP Stock Solution

Guidelines

TCEP can be dissolved in many types of aqueous buffers, and at a wide range of pH levels and still maintain stability

This allows you to prepare TCEP working concentrations and 10X stock solutions in the buffer of your choice before use. While TCEP can be used in Phosphate buffers, it has the tendency to be unstable around neutral pH levels.

If the TCEP is needed in the buffer, prepare it immediately before use.

A 50 mM TCEP solution may be substituted for **DTT** or β -Mercaptoethanol (β -ME) in SDS-PAGE loading buffers. TCEP cannot be used for isoelectric focusing, due to its charge in solution.

Materials

MATERIALS

 TCEP HCl P212121 Catalog #SV-TCEP

STEP MATERIALS

 TCEP HCl P212121 Catalog #SV-TCEP

 TCEP HCl P212121 Catalog #SV-TCEP

 TCEP HCl P212121 Catalog #SV-TCEP

 TCEP HCl P212121 Catalog #SV-TCEP

Protocol materials

 TCEP HCl P212121 Catalog #SV-TCEP



- 1 Weigh 5.73 g of TCEP
 TCEP HCl P212121 Catalog #SV-TCEP
- 2 Add 35 ml of cold molecular biology grade water to the vial, and dissolve the TCEP. This resulting solution is very acidic, with an approximate pH of 2.5.
 00:03:00
 TCEP HCl P212121 Catalog #SV-TCEP
- 3 Bring the solution to pH 7.0 with 10 N NaOH or 10 N KOH.
- 4 Bring the resulting solution to 40 ml with molecular biology grade water.
- 5 Aliquot into 1 ml volumes in freezer tubes and store at -20°C.