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Glass Milk preparation - forked

Forked from Glass Milk preparation

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Other

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MC2

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FORK FROM

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MATERIALS

NAME	CATALOG #	VENDOR
Tris, 1 M, pH 8.0	AM9855G	Ambion
Hydrochloric acid	320331-500ML	Sigma - Aldrich
UltraPure™ 0.5 M EDTA pH 8.0	15575020	Thermo Fisher Scientific
Silica 325 Mesh		

STEPS MATERIALS

NAME	CATALOG #	VENDOR
Silica 325 Mesh		
Hydrochloric acid	320331-500ML	Sigma - Aldrich
MilliQ water		
Tris, 1 M, pH 8.0	AM9855G	Ambion
UltraPure™ 0.5 M EDTA pH 8.0	15575020	Thermo Fisher Scientific

MATERIALS TEXT

325 mesh silicon dioxide (Spectrum Chemicals - SI108) Silica 325 mesh is a flint glass powder available from ceramic shops https://www.spectrumchemical.com/OA_HTML/chemical-products_Silicon-Dioxide-325-Mesh-Crystalline_SI108.jsp? section=16930

Millipore Sigma 320331 HCl

EQUIPMENT

VENDOR NAME **CATALOG #**

Fume hood

Unknown

SAFETY WARNINGS

dry silica powder should not be inhaled

DISCLAIMER:

DISCLAIMER - FOR INFORMATIONAL PURPOSES ONLY; USE AT YOUR OWN RISK THIS IS A TEST OF PROTOCOLS.IO

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Glass Milk Preparation

7h

To prepare glass milk, 325 mesh silicon dioxide (Spectrum Chemicals - SI108)

45m

88 Silica 325 Mesh

was combined with an excess volume of 10% HCI (~3 N HCI) made from combining 37%

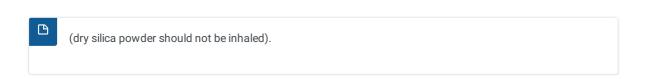
88 Hydrochloric acid by Sigma - Aldrich Catalog #: 320331-500ML

and MilliQ water (Millipore) in a fume hood

MilliQ water

Fume hood Fume hood Generic Unknown





1.1 Sub step in forked version for testing.

30s

1h

- After acid washing for **3.04:00:00 Possibly 4 to 8 hours** at room temperature **§ Room temperature**, silical was pelleted by spinning two minutes at **3.5000 rpm**, **00:02:00** 5,000 xg and the supernatant was poured off.
- 3 The pellet was resuspended in four pellet volumes of

MilliQ water

and then pelleted again.

This wash step was repeated for a total of six washes.

The pellet was then washed with four pellet volumes of 10 mM Tris HCl, pH = 8 (ThermoFisher Scientific AM9855G)



and 1 mM EDTA (ThermoFisher Scientific 15575020),



and pelleted.

Finally, the pellet was resuspended in 1 pellet volume of 10 mM Tris HCl and 1 mM EDTA and autoclaved. This autoclave step is likely superfluous, however, as acid washes should render the beads free of contaminants. The resulting 50% glass milk slurry can be stored at room temperature.

Before use, care must be taken to vigorously resuspend the particles as they begin to settle quickly.