

Paraformaldehyde (PFA) from Powder

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Abstract

This is a guide to prepare PFA from powder. This is useful for PFA Fixation.

Citation: Faculty of Medicine Flow Cytometry Facility, U. of Toronto Paraformaldehyde (PFA) from Powder. **protocols.io** dx.doi.org/10.17504/protocols.io.c5yy7v

Published: 25 Jan 2016

Guidelines

Working Dilutions:

Thawed aliquots are stable at 4° C for up to 2 weeks.

Dilute 1 part 2% PFA to 3 parts cells in PBS (eg 60 µl + 180 µl to yield 0.5% final concentration).

Protocol

Prepare PFA From Powder

Step 1.

Allow paraformaldehyde (PFA) powder to come to room temperature

📌 NOTES

VERVE Team 10 Aug 2015

(Stored in refrigerator)

Prepare PFA From Powder

Step 2.

Weigh 10.0 g PFA in fume hood.

📌 AMOUNT

10 g Additional info:

🧴 REAGENTS

✓ Paraformaldehyde Powder (PFA) [P6148](#) by Contributed by users

Prepare PFA From Powder

Step 3.

Flush container with Argon or Nitrogen to prevent air decomposition of p-formaldehyde.

Prepare PFA From Powder

Step 4.

Dissolve in 475 ml distilled H₂O in 60-70° C water bath on hot plate in fume hood.

📌 AMOUNT

475 ml Additional info:

📌 NOTES

VERVE Team 22 Jun 2015

****Do not allow water bath to go over 70°C (formaldehyde will vaporize!).**

Prepare PFA From Powder

Step 5.

While dissolving, label 100 X 4 ml and 7 X 12 ml tubes (or other combinations of useful aliquots) with the concentration and date.

Prepare PFA From Powder

Step 6.

After 1 hr add 1 or 2 drops of 5M NaOH.

 **DURATION**

01:00:00

 **NOTES**

VERVE Team 22 Jun 2015

Cloudy suspension will then turn clear.

Prepare PFA From Powder

Step 7.

Allow to cool at room temperature (@2hours)

 **DURATION**

01:00:00

Prepare PFA From Powder

Step 8.

Add 25 ml 20X PBS ([See Recipe](#))

 **AMOUNT**

25 ml Additional info:

Step 9.

Adjust pH to 7.3.

Step 10.

Filter, aliquot into tubes and freeze.

 **NOTES**

VERVE Team 22 Jun 2015

Aliquots good for at least 5 years.

Thawed aliquots are stable at 4°C for up to 2 weeks.

Prepare PFA From Powder

Step 11.

Dilute 1 part 2% PFA to 3 parts cells in PBS (eg 60 µl + 180 µl to yield 0.5% final concentration).