

Solutions: The Recipe Book to Live and Die By

50X TAE

242g Tris Base
57.1 mL glacial acetic acid
100mL .5M EDTA (pH 8.0)
800mL dH₂O

Volume to 1L with dH₂O
(autoclave for 20 minutes)

.5M EDTA (pH 8.0)

146.125g EDTA (FW 292.25)
(can also use fw 372.2....just alter grams accordingly)
800mL dH₂O (in 1L flask)
pH to 8.0 with NaOH pellets (about 20g or so)

Volume to 1L with dH₂O
(autoclave for 20 minutes)

EDTA will not go into solution until the pH is VERY CLOSE to 8.0!!!

10X PBS

74g NaCl
18.775g Na₂HPO₄•7H₂O
4.15g NaH₂PO₄•H₂O

Volume to 1L with dH₂O
pH to ~7.4 (1X)

2X Injection Buffer

1mM NA₂HPO₄
10mM KCl
for 100ml:

.07456g KCl
.026807 $\text{Na}_2\text{HPO}_4 \cdot 7\text{H}_2\text{O}$ (sodium phosphate dibasic septahydrate)
Mix together with ~100ml milli H_2O (final volume to 100ml). Take pH. The pH should be ~8.4. Use diluted phosphoric acid to pH down to 7.8. Autoclave for 20 minutes (liquid setting).

20X SSC

for 1L:
175.3g NaCl
88.2g sodium citrate
800ml m H_2O
Use 10N solution of NaOH to pH up to 7.0. Volume solution to 1L with m H_2O .
Autoclave for 20 minutes (liquid setting).

1M Tris HCl

for 1 L:
121.1g Tris
800ml m H_2O
~42ml HCL

Autoclave for 20 minutes on liquid setting.

Tris-EDTA (TE) pH 8.0

For 1 L:
10ml 1M Tris
2ml 0.5M EDTA

Fill up to volume (1L) with m H_2O . Autoclave for 20 minutes on liquid setting.

*for different pH of TE, use corresponding pH of EDTA

PBS Stock Solution (10X)

80g NaCl
2g KCl
28.8g NaH₂PO₄·12H₂O
2g KH₂PO₄
.2g Sodium Azide

Fill up to volume (1L) with m H₂O. pH to 7.4.

3M NaAc pH 5.2

408.1g NaA·3H₂O
800ml H₂O
pH to 5.2 with glacial acetic acid (found in hood). Fill up to volume (1L) with H₂O. Autoclave for 20 minutes.

Phosphate Buffer 0.2M: Sorensens

28ml	0.2M Na Monophosphate (1.38g/50ml)
72ml	0.2M Na Diphosphate (7.16g/100ml)

PBT

PBS plus 0.1% Tween 20

Hybe

50% de-ionized formamide
5X SSC
100 μ g/ml sonicated, boiled salmon sperm DNA
100 μ g/ml tRNA
50 μ g/ml heparin
0.1% Tween 20

In Situ Wash

2ml 5M NaCl
5ml 1M MgCl₂
10ml 1M Tris pH 9.5
1ml 0.1M Levamisol
100 μ L Tween 20
Bring total volume to 100ml