IMMUNOHISTOCHEMISTRY SOLUTIONS

Phosphate Buffers

0.2M Phosphate Buffer (PB), pH 7.40

Na_2HPO_4*Dibasic	23g
NaH_2PO_4*Monohydrate	5.2444g
dH_2O	To 1000 mL

0.1M Phosphate Buffer, pH 7.40

0.2M PB	500mL
dH_2O	500mL

0.1M Phosphate Buffer with Azide, pH 7.40

NaN_3 (sodium azide)	0.05g
0.1M PB	To 500mL

0.5M Phosphate Buffer, pH 7.40

Sodium Dibasic Phosphate	67g in 500mL dH_2O (**and heat)**
Sodium Monobasic Monohydrate	6.9g In 100mL dH_2O

PFAs

4% Paraformaldehyde, pH 7.40

Paraformaldehyde	20g in 400mL dH_2O
dH_2O	To 500mL

Wrap beaker with parafilm in chemical hood
Heat to ~50°C with a stir bar rotating
Do not allow heat to go above 60°C
NaOH tablets can be added to help clear the solution
Vacuum filter and pH to 7.40

11.43% PFA, pH 7.40

Paraformaldehyde	57.2g in 400mL dH_2O
dH_2O	To 500mL

Wrap beaker with parafilm in chemical hood
Heat to ~50°C with a stir bar rotating
Do not allow heat to go above 60°C
NaOH tablets can be added to help clear the solution
Vacuum filter and pH to 7.40

Alternative 4% PFA method, pH 7.40

11.43% PFA	175mL
Picric Acid	75mL
0.2M PB	250mL

This method does not require heating, but does require a chemical hood and gloves.

FOR ALL PFA SOLUTIONS (IMPORTANT)

All steps of PFA solution making **must be done** under a functioning chemical fume hood while wearing gloves to avoid exposure.
All pH measurements should be done with **pH strips**, *not* the pH meter.