

0.1 M potassium phosphate (KPi)

Materials:

K_2HPO_4 .

KH_2PO_4 .

Sterile water.

Preparation of 1M K_2HPO_4 and KH_2PO_4 stock solution:

Protocol:

Weight 87.09gr of K_2HPO_4 .

Weight 68.045gr of KH_2PO_4 .

Add 500 ml of sterile water to each.

Stir till it is dissolved.

Preparation of 0.1M KPi at pH 7:

Protocol:

Add 61.5 ml of 1 mM K_2HPO_4 .

Add 38.5 ml of KH_2PO_4 .

Add 900 ml of water.

Calculation:

Molecular weight of K_2HPO_4 : $174.18 \frac{gr}{mol}$

Weight needed: 87.09gr

Concentration:

$$\frac{87.09gr}{174.18 \frac{gr}{mol}} = 2 \text{ mol}$$

For 1 M stock solution:

$$\frac{2mol}{0.5lit} = \frac{1mol}{lit} = 1M$$

Molecular weight of KH_2PO_4 : $136.09 \frac{gr}{mol}$

Weight needed: 68.045gr

Concentration:

$$\frac{68.045gr}{136.09 \frac{gr}{mol}} = 2 \text{ mol}$$

For 1 M stock solution:

$$\frac{2mol}{0.5lit} = \frac{1mol}{lit} = 1M$$