

Techniques

Various basic lab techniques are displayed here on weekly basis. This week, we show you how to use a micropipette.

Micropipette is a special kind of pipette that can draw extremely minute amount of liquid i.e. in μL (microlitre). It is of two types: (a) Fixed, and (b) Variable. Variable micropipette can draw liquid or solution in variable quantities e.g. 0.5 to 10 μL , 10 to 50 μL , 40 to 200 μL , 200 to 1000 μL .

Scale:

$1,000 \text{ mL} = 1 \text{ litre}$

$1,000,000 \mu\text{L} = 1 \text{ litre}$

$1 \mu\text{L} = 0.001 \text{ mL}$

$1,000 \mu\text{L} = 1 \text{ ml}$

How to use a micropipette?

Pick a micropipette with correct range of quantity that you require.

Dial the desired volume (that must be within the range specified for the micropipette).

Apply an appropriate tip at the end of the pipette.

Hold the micropipette in vertical position. Keep the plunger of the micropipette pressed down with your thumb to the first stop.

Dip the tip into the solution which is to be drawn.

Draw fluid into the tip by slowly releasing the plunger.

Hold the micropipette in your one hand, and, hold the tube (into which you have to pour the liquid) in your other hand vertically.

Dip the micropipette tip into the tube and make a contact with its inside wall. Press the plunger down to the second stop with help from your thumb to release the content into the tube. Keeping it pressed, get out slowly so that the content is not sucked back.

Note: You should change the tip every time you use a micropipette.

