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Product Name :

Kidneys And Blood Filtration kit

Product Code :

SLE/EB/10



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Description :

Kidneys And Blood Filtration kit lets students build model kidneys from dialysis tubing and filter simulated blood through them. Each group fills a tube from the 100 mLbottle of simulated unfiltered blood, stands it in a cup of water and chemically teststhe filtrate for wastes removed, then links the result to the work of the nephrons.

Kidney filtration kit contents

Parameter	Detail
Topic	The kidney in blood filtration and waste removal; tasks performedby nephrons
Activities	Create an artificial kidney model; filter simulated blood; chemically test the filtrate for possible wastes removed
Simulated unfiltered blood	1 bottle, 100 mL (simulated, not real blood)
Dialysis tubing	15 pieces
Plastic cups	15
Pipettes	15, each 1 mL
Test reagents	Not named in the contents list
Product code	SLE/EB/10
Minimum order	10 units
Dispatch	Usually within 7 to 10 working days
Supplied by	ScienceLab (Jain Scientific Equipments Pvt Ltd), Ambala, India

Running the model kidney practical

Building the model kidney. Soak a piece of dialysis tubing in water until it softens, then rub one end between finger and thumb to open it. Close the bottom with a tight knot or a tubing clip, add simulated blood with a 1 mL pipette and close the top. Rinse the outside under running water and stand the tube in a plastic cup of water so the filled part is covered.

Testing the filtrate. After a set time, lift the tube out and test the water in the cup with the chemical tests chosen for the practical. Students record which substances have crossed the membrane and which have stayed behind. A cup of plain water tested in the same way acts as the control.

Comparing with a real kidney. Students match their model against a kidney, nephron and glomerulus model set: the tubing wall stands for the filter in the glomerulus, and the c ves out, subs