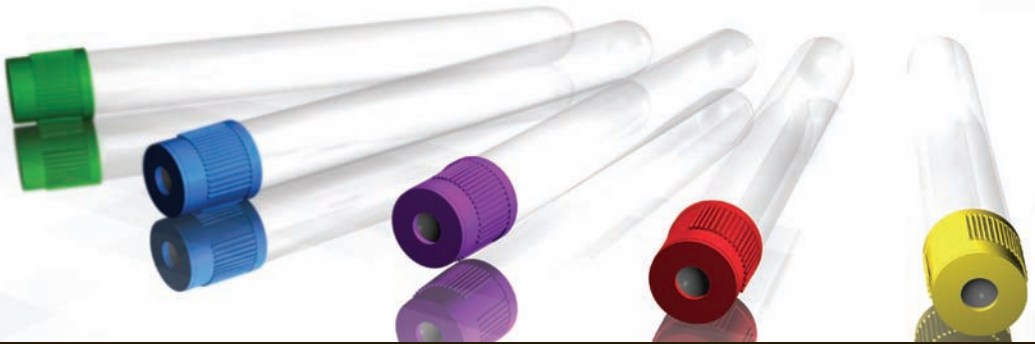




Blood Collection Tubes



Occidem Biotech

Occidem Biotech is a specialised subsidiary of Neomedic Limited (www.neomedic.co.uk) dealing with the manufacture and supply of :

- Reagents
- Urine and Blood based tests
- Blood collection and transfusion products

Occidem Biotech is run to the same high standards as Neomedic Limited and shares the objective of providing quality healthcare at affordable prices.

Occidem Biotech Blood Collection Tube users benefit from one of the most modern and highly efficient production facilities in the world.

Occidem Biotech operates a number of safeguards to ensure that the products we manufacture are of the highest quality at all times. All products are ISO 9001:2000, ISO 13485:2003, CE and CMDCAS compliant. The highest quality raw materials are used at all times and we utilise state of the art machinery thus resulting in a consistently high quality product.

The use of Occidem Biotech Blood Collection Tube products ensures the safety of the user as well as the health and well-being of a magnitude of healthcare workers and patients.

Preparing for Blood Collection

A. Patient identification

This is performed by a comparison between the patient's test order form and the patient identification number, barcode, wristband number or other objective criteria.

B. Position

The patient should be suitably positioned for venipuncture (either sitting or recumbent), the position should be maintained for a minimum of 15 minutes prior to performing the venipuncture.

C. Preparation of the Collection Material

Prior to performing the venipuncture, the following items must be prepared:

- **Occidem Biotech** Blood Collection System
(consists of needle, tube holder and blood collection tube)
- Label for patient identification
- Sterile disposable gloves
- Sterile swab
- Disinfectant or alcohol solution
- Adhesive Plaster
- Tourniquet
- Disposal container

Selection of a Puncture Site

Priority list (for clinics):

1. Blood collection from the dorsal side of the hand (Dorsal veins).



2. Blood collection from the antecubital area of the arm (Median, Basilic or Cephalic veins)



3. Blood collection from the dorsal surface of the foot (Venous arch)



Prior to making the final selection of a site for venipuncture, an inspection of the proposed area is necessary. The selection sequence should correspond to the priority list; whereby 1) and 2) are suitable in 95 % of cases and provide a satisfactory outcome.

Venipuncture

Lightly tap the vein (only in the case of a non-prominent vein).



Vein stasis with a tourniquet - maximum duration 1 minute.



Disinfect the puncture site (Allow the disinfectant to thoroughly dry).



Venipuncture - Insert the threaded needle into the holder and then insert into the patient's vein. The patient arm should be inclined in a downward position.



With the second hand, the vacuum tube should be inserted into the holder (the tube cap must point upwards). Ensure that the rubber stopper is fully penetrated. Release tourniquet (as soon as blood begins to flow).



Venipuncture

For patients with prominent veins it is recommended to use the following **Occidem Biotech** standard blood collection products:

Multi-sample needle with uniquely shaped faceting (three needle gauges available in 20, 21 and 22 G) for a patient friendly, pain free blood collection.

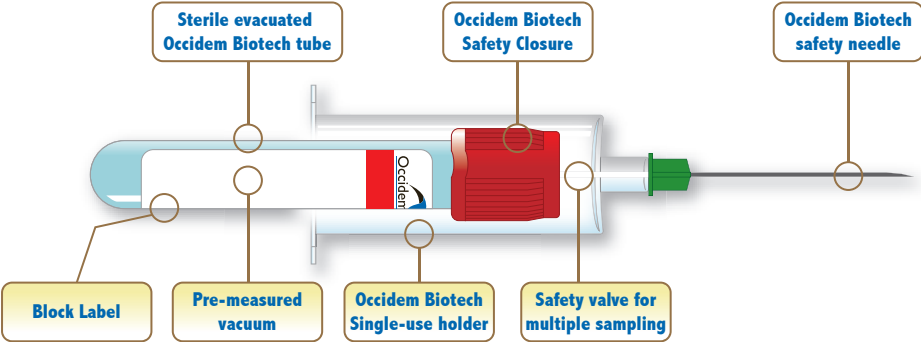


Tube holder with ergonomic design. The specially adjusted surface area allows for improved handling of the holder during blood collection.



Blood collection tubes, available exclusively in both glass and plastic. All tubes are available with a safety cap. The use of a vacuum system eliminates the possibility of back flow occurring during blood collection.





The Occidem Biotech Blood Collection System is a closed evacuated system, which consists of a double-ended needle with safety valve, Occidem Biotech Blood Collection Tubes holder and sterile Occidem Biotech Blood Collection Tubes with pre-measured vacuum.

Blood is collected by screwing the sleeve-covered end of the needle into the holder, then puncturing the patient's vein with the other end. After performing venepuncture the tube is then pushed into the holder, and then pre-measured vacuum of the tube allows the required volume of blood to be drawn.

There are many advantages to using the Occidem Biotech Blood Collection System:

- It is hygienic because the blood is drawn directly into the tube eliminating user exposure.
- There are a wide range of colour-coded tubes available with pre-measured additives for a variety of analytical tests covering haematology, clinical chemistry, immunology chemistry and coagulation.
- There is no manual influence on the drawing of blood so the process remains consistent. The system is a more reliable alternative to the traditional needle and syringe technique.

The tubes are colour-coded according to the appropriate additive and international standards (ISO 6710).

Occidem Biotech Blood Collection Tubes are available in the following sizes:

13mm x 75mm
(actual size)



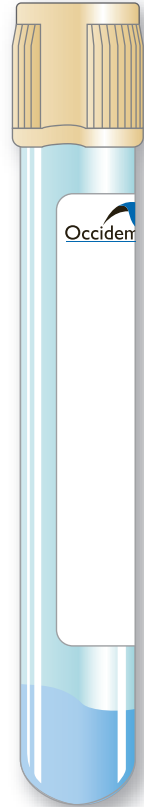
1.8ml, 2ml, 2.5ml, 2.7ml,
3ml, 3.5ml, 4ml, 4.3ml,
4.5ml, 5ml, 6ml.

13mm x 100mm
(actual size)



4ml, 4.5ml, 5ml, 6ml,
7ml.

16mm x 100mm
(actual size)



8ml, 8.5ml, 9.5ml,
10ml.

Blood Collection Tubes

Handling & Usage

TRANSPORTATION

The recommended transport and storage temperature for tubes prior to use is 4-25°C. Exceeding the recommended storage temperature may lead to a deterioration in the tube quality.

Avoid direct exposure to sunlight in storage and during transportation of samples, especially light sensitive analytes such as Bilirubin. To ensure safe transport it is recommendable to use a transport box.

CENTRIFUGATION

Centrifugation recommendations for **Occidem Biotech** tubes are:

Serum tubes min. 1500 g 10 min.

Serum tubes with Gel 1800 g 10 min.

Serum tubes with Beads 1800 g 10 min.

Serum tubes should not be centrifuged within 30 minutes after blood collection.

Plasma tubes 2000-3000g 15 min.

Heparin tubes with Gel 2200 g 15 min.

EDTA tubes with Gel 1800 - 2200 g 10 min.

HANDLING

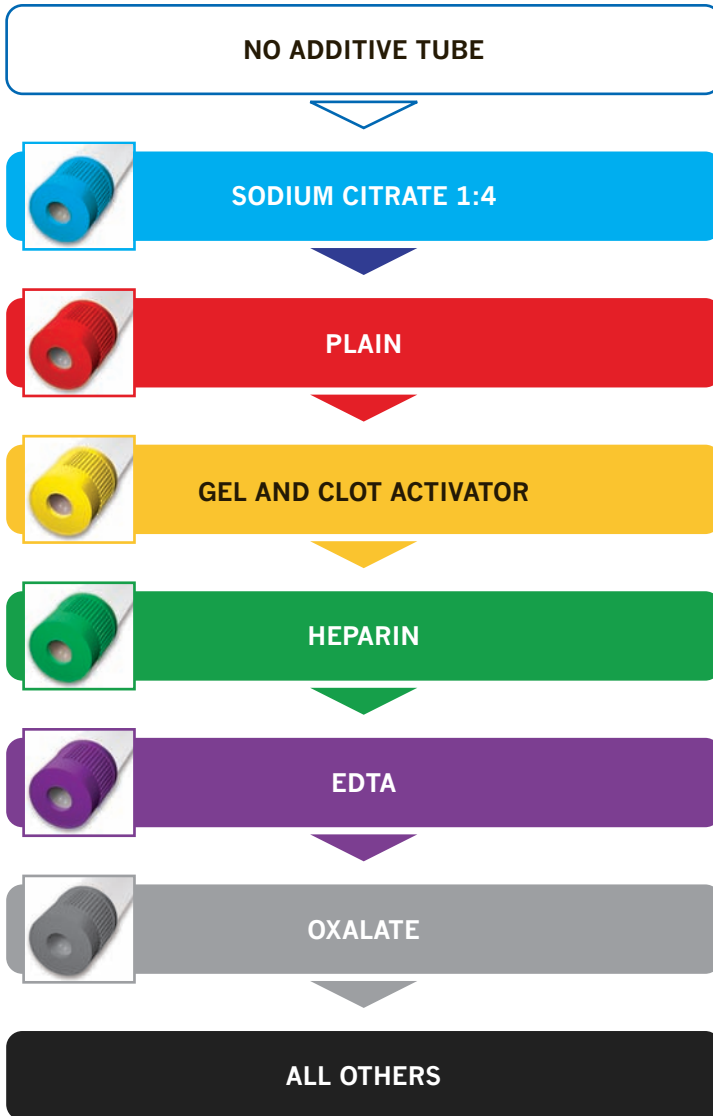
Opening **Occidem Biotech** Tubes

- 1) Hold the tube firmly in one hand (use a solid base to support the arm)
- 2) Twist the safety cap with the other hand so the cap is loosened
- 3) Carefully open the tube with a gentle twistpull motion.

Closing **Occidem Biotech** Tubes

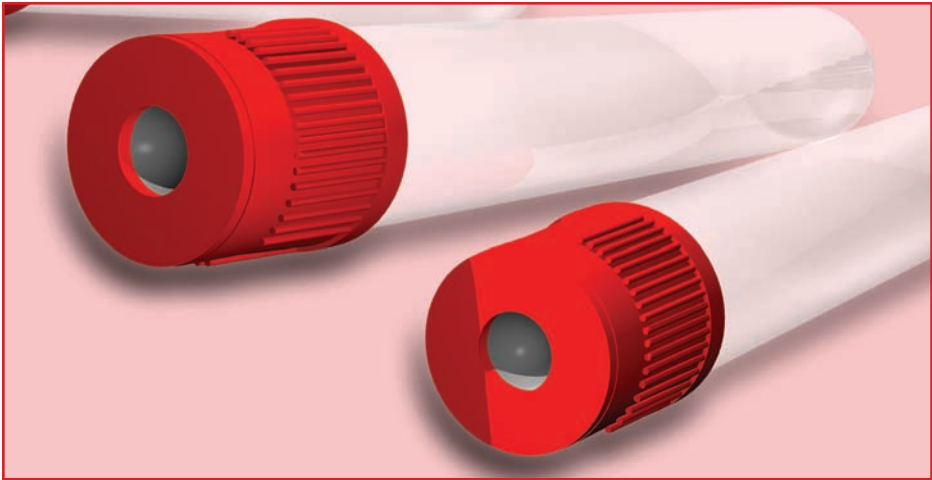
- 1) Place the safety cap on the tube
- 2) Press the cap onto the tube with the thumb (so it is firmly sealed)

Recommended Order of Draw for Multiple Specimen Collection



Note: Blood Culture tubes should be drawn first.
Always follow your facility's protocol for order of draw.


Serum Tubes



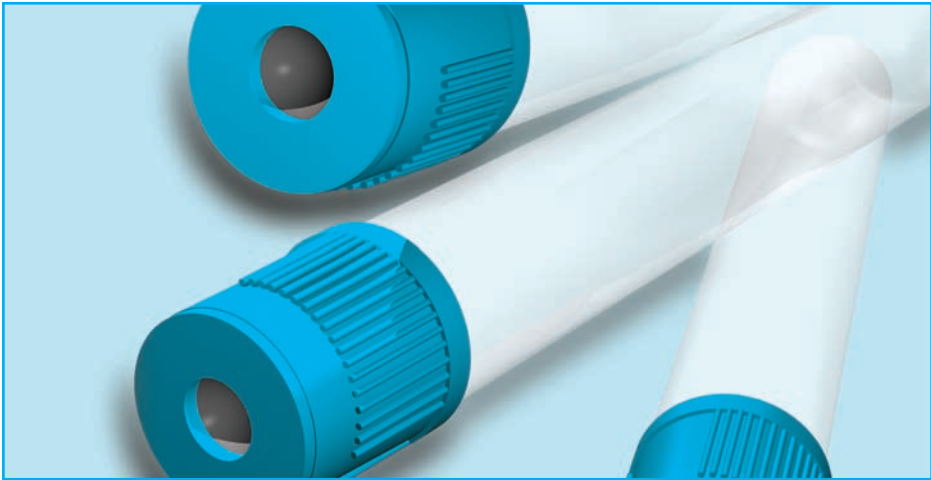
Occidem Biotech Serum Blood Collection Tubes are generally used for serum determinations within Clinical Chemistry and Serology. The tubes are available in a range of sizes in both plastic and glass and can be identified by a red cap. Occidem Biotech Blood Collection Tubes Serum tubes are also available with a pink cap and crossmatch label for transfusion patients.

Occidem Biotech Plastic Serum Blood Collection Tubes contain an additive spray to accelerate the clotting process. In glass Occidem Biotech Serum Blood Collection Tubes the grain of the glass surface activates the clotting process naturally, and therefore these tubes do not have an added clot activator.

The minimum recommended clotting time for serum tubes for patients without anticoagulant is 60 minutes.


<div>PLAIN</div> 	RED	16x125	15
		16x100	10
		13x100	3
		13x100	4
		13x100	5
		13x100	6
		13x100	7
		13x75	2
		13x75	3
		13x75	4
		13x75	5

Coagulation Tubes (Sodium Citrate)

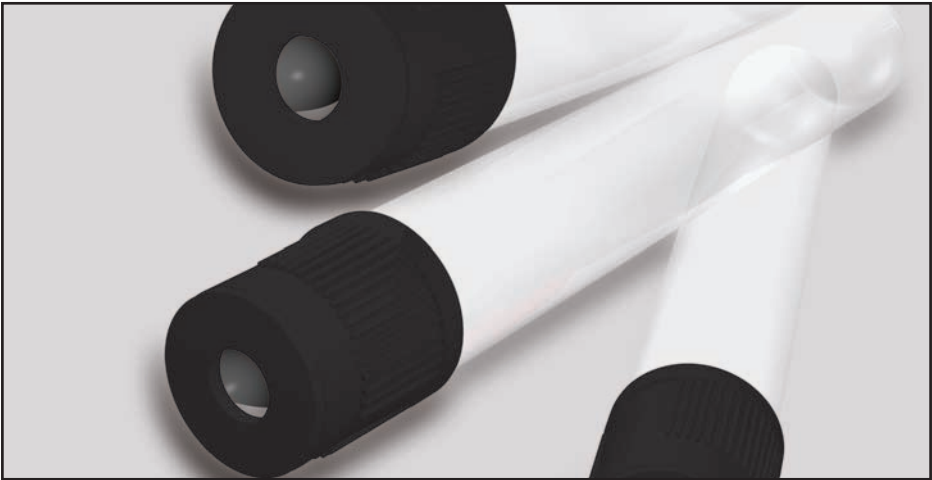


Occidem Biotech Citrate Blood Collection Tubes are generally used for coagulation studies. The tubes are available in a range of sizes in both plastic and glass and can be identified by a light blue cap.


Occidem Biotech Citrate Blood Collection Tubes tubes contain Buffered Citrate solution, which is used as an anticoagulant for coagulation studies.

<div>SODIUM CITRATE</div> 	BLUE	13x100	1.8
		13x100	2.7
		13x100	3.5
		13x100	4.5
		13x75	1.8
		13x75	2.7
		13x75	3.6
		13x75	4.5

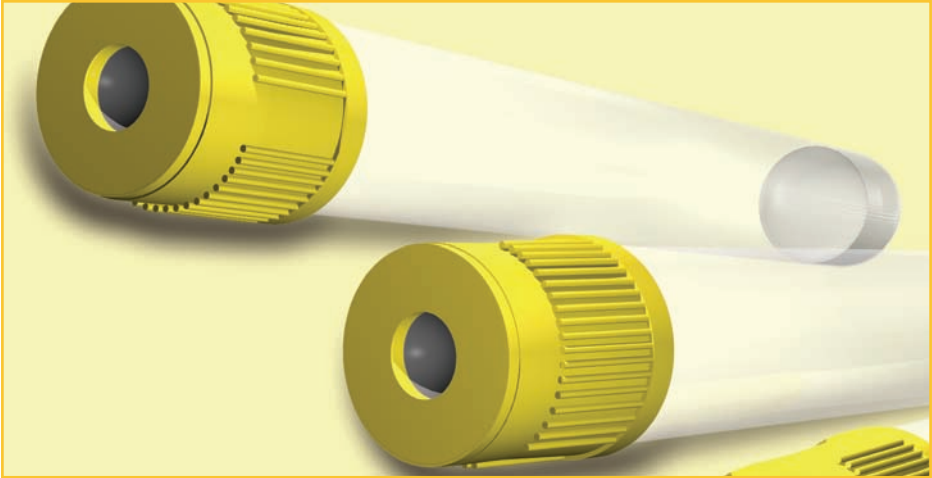
ESR Tubes (Buffered Sodium Citrate)



Occidem Biotech ESR Blood Collection Tubes are used for measuring the Erythrocyte Sedimentation Rate (ESR) without the need for opening the tube for blood pipetting or transfer. Blood is drawn directly into the Occidem Biotech ESR tube, the tube has to be mixed 8-10 times, inserted onto stand and the result can be read after 60 minutes.


<div>ESR</div> 	13x100	1.6
		2.4
		1.6
		2.4
BLACK		

Serum Seperator Tubes

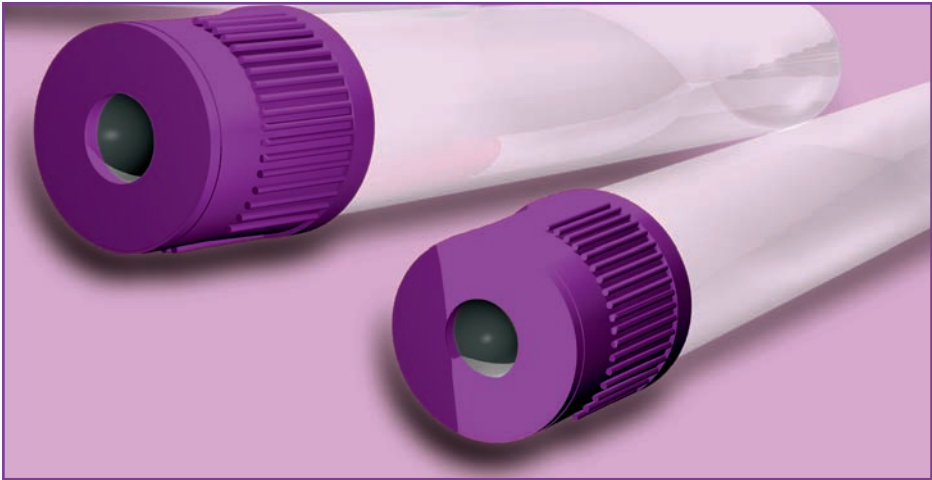


Occidem Biotech Serum Separation Blood Collection Tubes are generally used for serum determinations in Chemistry and can be identified by a gold cap. Occidem Biotech SS Tubes contain Silica to activate clotting of the specimen, and a gel that forms a barrier between the clot and the serum after centrifugation.

The minimum recommended clotting time for Occidem Biotech SS Tubes for patients without anticoagulant is 30 minutes.

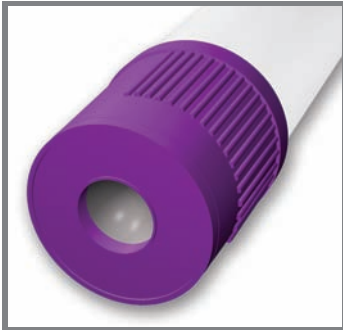
GEL AND CLOT ACTIVATOR			
	GOLD	16x125	13
		16x125	11
		15x100	7.5
		16x100	8.5
		16x100	9.5
		13x100	3
		13x100	4
		13x100	5
		13x100	6
		13x75	2
		13x75	3
		13x75	4

ETDA Tubes



Occidem Biotech EDTA Blood Collection Tubes are generally used for whole blood Haematology determinations. The tubes are available in a range of sizes in both plastic and glass and can be identified by a lavender cap.

Generally K2 or K3 Potassic Salt of EDTA (Ethylene Diamine Tetra Acidic acid) is used as an anticoagulant. In Occidem EDTA Plastic Biotech Blood Collection Tubes the inner wall is spray coated with the additive, whereas in Occidem Biotech EDTA Glass Blood Collection tubes the additive is in liquid form.

		EDTA(K2)		EDTA(K3)	
	LAVENDER	16x100	10	16x100	10
		13x100	3	13x100	3
		13x100	4	13x100	4
		13x100	5	13x100	5
		13x100	6	13x100	6
		13x100	7	13x100	7
		13x75	1	13x75	1
		13x75	2	13x75	2
		13x75	3	13x75	3
		13x75	4	13x75	4
		13x75	5	13x75	5

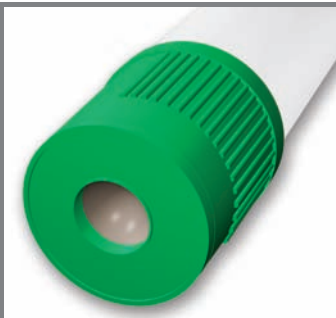
Plasma Tubes (Heparin)



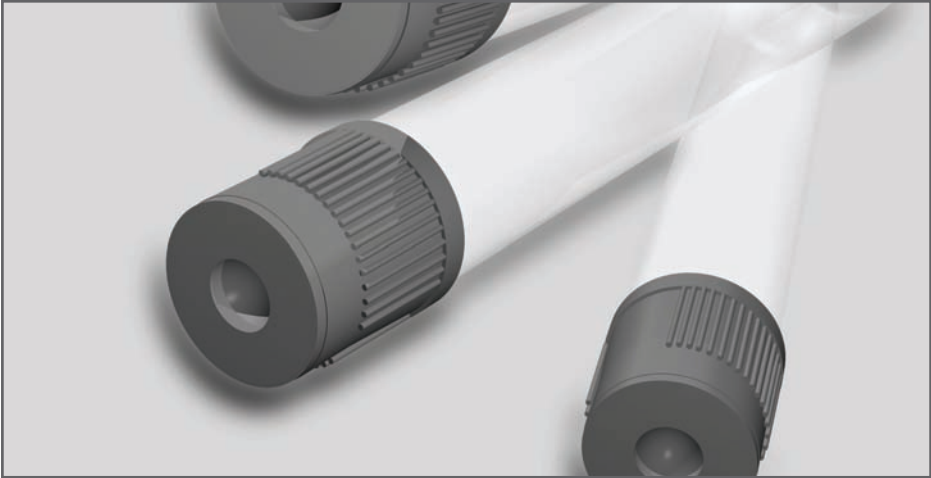
Occidem Biotech Plasma Blood Collection Tubes contain Sodium or Lithium Heparin and are generally used for plasma determinations in Clinical Chemistry. The tubes are available in a range of sizes in both plastic and glass and can be identified by a green cap.

The concentration of the Lithium and Sodium Heparin additive in Occidem Biotech Plasma Blood Collection Tubes tubes is 17 international Units of Heparin/ml of blood. The additive in the plastic tube is spray coated on the inner wall, and in the glass tubes it is either lyophilised (2 and 3ml) or vacuum dried (5 and 7 ml).

Heparin tubes can be centrifuged immediately, without the need to wait for the clotting process to be complete.

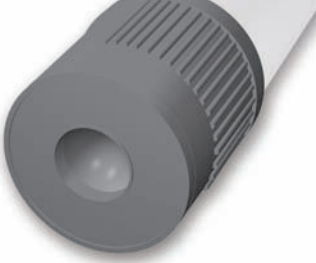
		HEPARIN SODIUM		HEPARIN LITHIUM	
	GREEN	16x100	10	16x100	10
		13x100	2	13x100	3
		13x100	3	13x100	4
		13x100	4	13x100	5
		13x100	5	13x100	6
		13x100	6	13x100	7
		13x100	7	13x75	2
		13x75	2	13x75	3
		13x75	3	13x75	4
		13x75	4	13x75	5
		13x75	5		

Fluoride/Oxalate Tubes

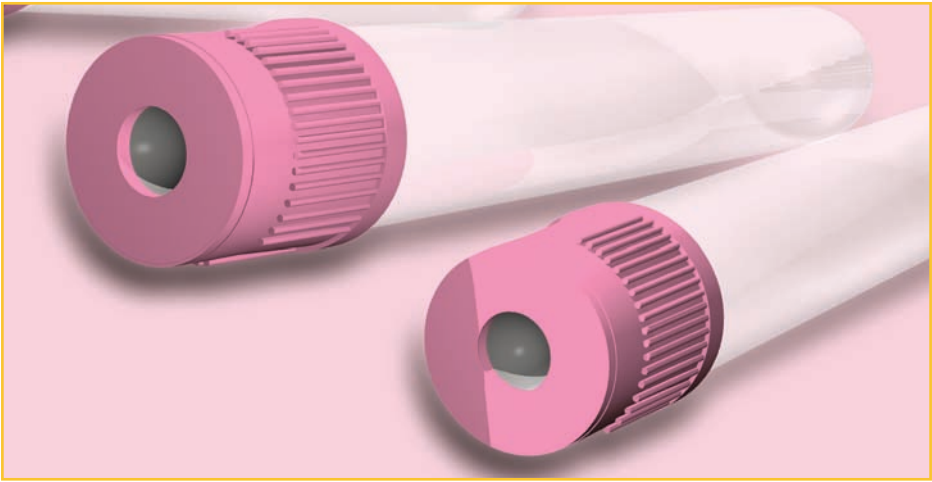


Occidem Biotech Fluoride/Oxalate Blood Collection Tubes are used for glucose determinations. The tubes are available in both plastic and glass and can be identified by a grey cap.


Glucose values in unpreserved blood samples decrease quickly after collection as glucose is metabolised by the blood cells. The additives in Occidem Biotech's Sodium Fluoride/ Potassium Oxalate tubes will stabilise glucose levels for up to 24 hours.

OXALATE			
	GREY	13x100	3
		13x100	4
		13x100	5
		13x100	6
		13x100	7
		13x75	2
		13x75	3
		13x75	4
		13x75	5

Crossmatch Tubes



Occidem Biotech Crossmatch Tubes are used for blood transfusion patients. The tubes are available in plastic EDTA and plain clot activator tubes and in glass plain serum tubes. A pink cap and a specialised crossmatch label, which is larger than the usual block label to allow for more information to be recorded, identify Occidem Biotech Crossmatch Tubes.

	CROSSMATCH	
	PINK	16x125
		15
		16x100
		10
		13x100
		3
		13x100
		4
		13x100
		5
		13x100
		6
		13x100
		7
		13x75
		2
		13x75
		3
		13x75
		4
		13x75
		5

Blood Collection Tubes



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