VACUETTE® Specimen Collection System

Paediatric | Separator | Standard

	Letter code	Tube Size in mm	13/75				13/100		16/100		9/120	
		Vol. in ml	2	3	3.5	4	5	6	8	9	1.5	2.75
Coagulation – Clinical Chemistry	Z	Serum Clot Activator	PREM/NR	PREM/NR		PREM/NR		PREM/NR		NR		
	Z	Serum Clot Acitvator + Gel				PREM/NR	PREM/NR		NR	NR		
	LH	Lithium Heparin	PREM/NR	PREM/NR		PREM/NR		PREM/NR		NR		
	LH	Lithium Heparin + Gel		NR		PREM/NR	PREM/NR		NR			
	NH	Sodium Heparin				PREM/NR		PREM/NR		NR		
	9NC	Trisodium citrate solution	PREM/NR	PREM/NR	PREM/NR							
Haematology – Specialities	K3E	K3 EDTA	PREM/NR	PREM/NR	PREM/NR	PREM/NR	PREM	PREM/NR		NR		
	K2E	K2 EDTA	PREM/NR	PREM/NR		PREM/NR	PREM/NR	PREM/NR		NR		
	K2E	K2 EDTA + Gel				PREM/NR	PREM/NR		NR			
	FX	Sodium fluoride Potassium oxalate		PREM		PREM/NR		PREM				
	FE	Sodium fluoride EDTA K3	PREM/NR			PREM/NR						
	ESR	Trisodium citrate	PREM									

PREM = PREMIUM (Safety Twist Cap), NR = Non-ridged (pull cap)

VACUETTE® Coagulation

These tubes are used for determinations in citrated plasma for coagulation testing. The recommended, buffered sodium citrate solution 3.2% (0.109mol/l) functions as anticoagulant by chelating calcium. The proportion of blood to sodium citrate anticoagulant volume is 9:1.

VACUETTE® Serum

Serum Tubes are used for determinations in serum for clinical chemistry, microbiological, serology, immunology and TDM. The tubes are coated with a clot activator. The recommended clotting time is >=30 minutes. Serum Gel Tubes allow storage of certain parameters under the recommended storage conditions according to their biological half-life in separated serum.

VACUETTE® Heparin Plasma

The tubes are used for determinations in heparinised plasma for clinical chemistry. The heparin concentration is standardised: 18 I.U. of lithium-, sodium- or ammonium salt of heparin per 1ml. Plasma Gel Tubes allow storage of certain parameters under the recommended storage conditions according to their biological half-life in separated plasma.

VACUETTE® EDTA

EDTA Tubes are used for determinations in EDTA whole blood for haematology and immunohaematology. The tube interior of EDTA Tubes is spray dried with 1.2 - 2mg anhydrous EDTA per 1ml blood.

VACUETTE® Glucose

Glucose Tubes are used for the analysis of blood sugar and lactate in stabilised whole blood or plasma. Sodium fluoride is used as glycolysis inhibitor to preserve glucose when combined with an anticoagulant such as potassium oxalate or EDTA.

VACUETTE® ESR

Sodium citrate solution 3.2% (0.109 mol/l) is the anticoagulant of choice for the measurement of the ESR. The proportion of blood to sodium citrate anticoagulant volume is 4:1.

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For further information, please visit our website **www.gbo.com/preanalytics** or contact us:

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VACUETTE®

Specimen Collection System

Our Innovations
for Your Safety

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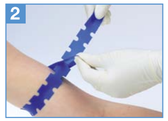
Thread the needle into the needle holder. Ensure that the needle is firmly seated in the holder. Leave the remaining section of the cover in place.



Apply tourniquet if required and disinfect the venipuncture site.

Place the patient's arm in a downward position and insert the needle into the vein as usual.

Push the tube into the holder and onto the needle valve puncturing the rubber stopper. Hold in place with the thumb. The prespecified vacuum of the tube allows the required quantitiy of blood to flow into the tube.

Remove the tourniquet as soon as blood appears in the tube. When the first tube is full and the blood flow ceases, remove it from the holder. Further samples can then be collected by inserting more tubes into the holder.

In order to ensure correct mixing of the sample with the additives, gently invert the tubes 5-10 times immediately following collection. After the last tube has been drawn and the blood flow ceases, remove the needle from the vein.

Activate the safety mechanism with the aid of solid surface or thumb upon removal of the needle from the patient's vein. An audible click indicates that the safety shield has been fully activated.

Dispose of the needle together with holder in a sharps disposal container specially intended for this purpose.

Components

Mulitiple Use Drawing Needle
or VISIO PLUS Needle

VACUETTE® QUICKSHIELD
or Standard Tube Holder

VACUETTE® Tourniquet
or **VACUETTE®** Super-T

VACUETTE®
Blood Collection Tube

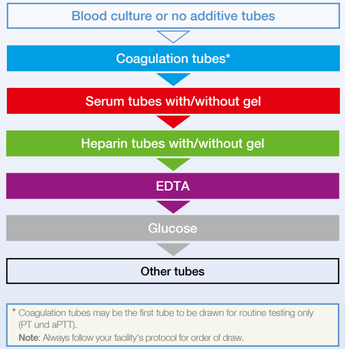
Disposal Containers

VACUETTE® Specimen Collection System

The invention of the world's first evacuated blood collection system made out of PET plastic by Greiner Bio-One has made specimen collection a lot safer. The innovative **VACUETTE®** system guarantees simple handling and hygiene in order to make your daily work easier.

for more details please see:
www.gbo.com/preanalytics

Recommended order of draw:



Our Innovations for Your Safety

The VACUETTE® system combines the advantages of vacuum technology with unique safety characteristics for the patient and the user.

Specification

- **clear as glass** but **virtually unbreakable**
- **screw caps** for **increased safety** and **simplified opening**
- **colour coded** rings offer additional **visual identification** of tube characteristics
- **longer shelf-life** due to **tube design**
- **compatible** with **all common analyser systems**
- **Fill-line** on each tube **for simple visual check**

Safety

- Virtually **unbreakable** during centrifugation, handling and transportation
- all **VACUETTE® tubes are sterile**
- **reproducibility of test results** is **guaranteed**
- **fast & reliable test results**
- **VACUETTE® Sandwich tube** with **special double wall technology;** the ultimate standard for coagulation tests
- **incineration** of **VACUETTE®** tubes is **environmental friendly** as PET breaks down into 3 natural components: carbon, hydrogen and oxygen

Standards

- **VACUETTE®** products are **US FDA approved**
- manufacturing complies with EC directives and US regulations (ISO 9001, ISO 13485, GMP)
- Products can be used according to recommendatons by WHO and CLSI