



### 血清类采血管 Serum Blood Collection Tube

在以人体静脉血为标本进行的临床医学实验中，有一类实验要以标本中的血清为检测对象，我们把适合于这类医学检验的采血管称为血清类采血管。

In the clinical medical experiments using human venous blood as specimen, some take the serum from the specimen as the experimental object. The blood collection tubes suitable for this type of medical tests are called serum blood collection tube.



### 血清类采血管的基础功能 The Basic Functions of Serum Blood Collection Tubes

- 1、收集检验所需的足量血清所需要的周边静脉血;
- 2、在规定的时间内染成凝血过程, 在离心机的协助下分离出完全血清或乏血小板血清;
- 3、在规定的标本贮存期内保证血清的生物、化学成分不发生变异或被污染。

满足上述功能的采血管包括无添加剂, 促凝剂, 分离胶 / 促凝剂 (红头管、橙头管和黄头管等三种类型。

- 1.To collect peripheral venous blood enough for the serum required in test.
  - 2.Within the specified time, to process it into blood coagulation and extract complete serum or platelet poor serum under the force of centrifuge.
  - 3.Within the specified storage period of specimen, to guarantee no variation or pollution to the biotic and chemical composition of serum.
- The blood collection tubes meeting the above functions include the three types of additive-free, clot activator and separation gel/clot activator (respectively red cap, orange cap and yellow cap).

## 无添加剂 No Additive

红色安全头盖指示此类采血管在试管内没有添加任何添加剂, 用于血清生化, 血库和血清学相关检验。Orsin真空采血管进行了特殊工艺处理, 无论是玻璃管还是塑料管, 其内壁能有效避免血细胞附壁, 最大限度减少标本体外溶血, 使检测结果更加准确。

Red cap tubes, with red safety caps to indicate this type of blood collection tubes not containing any additive in the test tube, are used in serum biochemistry, blood banks and serology related tests. Processed with special treatment, Orsin vacuum blood collection tubes, either glass or plastic, can effectively avoid blood cell attached on its inner wall and reduce the in vitro hemolysis of specimen to the greatest extent, so as to guarantee more accurate test result.



## 促凝剂 CLOT ACTIVATOR

橙色安全头盖指示此类采血管中添加了Orsin专用促凝剂, 能为临床检验快速地提供完全清, 广泛应用于急诊生化及免疫学试验。Orsin专用促凝剂均匀地涂布在整个采血管内部, 最大限度提高与血液的接触面积, 其自身不溶于血清, 不与血细胞发生物质交换, 对蛋白的竞争性吸附极小, 最大限度提高血清产量, 保证血清质量。

Orange cap tubes with orange safety caps, which indicate that there is special clot activator from Orsin in this blood collection tubes, can quickly provide complete serum with clinical laboratory, which is widely used in emergency biochemical and immunological tests. The special clot activator is evenly coated inside the whole tube for maximizing the contacting area with blood. It doesn't dissolve in serum and doesn't substance with blood cell, and has lower competitive absorption of protein, which increase the output and ensure the quality of serum in the greatest extent.





## 分离剂/促凝剂 GEL/CLOT ACTIVATOR

黄色安全头盖指示此类采血管中添加Orsin专用促凝剂和专用分离胶。Orsin分离胶具有良好的耐热性和化学稳定性，以及低温使用不便，辐照后成分变化的问题，避免了高温分解与小分子物质析出。

Yellow cap indicates that this tube contain the special clot activator and separation gel from Orsin. Orsin separation gel has outstanding heat resistance and chemical stability; it is unchangeable under the low temperature and af ter radiation, which is to avoid high-temperature decomposition and micro-molecular substances.



## 血浆类采血管 Plasma Blood Collection Tube

血浆类采血管是在临床血液检验中，用于 提供血浆标本的采血管。由于血浆是由未凝固血液中去细胞获得，我们把血浆又分为含游离钙血浆和不含游离钙血浆。含游离钙血浆除比血清增多了纤维蛋白原与抗凝剂外，在普通检查中，两者成分区别不大，因而常用这类采血管中的标本代替血清用于临床生化检查。常用的血浆类采血管分别包括含肝素钠盐或锂盐的绿头管、含柠檬酸钠缓冲体系的蓝头管，以及含氟化钠-EDTA复合抗凝体系的灰头管。

Plasma blood collection tubes are used in collecting plasma specimen in clinical blood testing. As plasma comes from removed cell in uncoagulated blood, and plasma is classified into containing free calcium and not containing that. There is not great difference in these two types plasma, the only difference is that free calcium plasma has fibrinogen and anticoagulant. Therefore, this tube is always used in clinical biochemical laboratory which instead of serum. Plasma blood collect tubes include green, blue and grey cap, which indicate heparin sodium salt or lithium salt(green), sodium citrate buffer system (blue) and NaF-EDTA composite anticoagulation system(grey).



## 肝素钠、肝素锂 Lithium Heparin LH

绿色安全头盖指示此类采血管中添加了以钠盐或锂盐型式存在的肝素抗凝剂。先进的微喷雾技术确保肝素抗凝剂迅速作用于血液标本，为临床实验提供立等可取的血浆标本，因而多用作急诊生化实验，同时，因肝素抗凝标本的血液流变学性质差别不大，故又常用于血液流变学实验。

Green cap indicate that there is heparin anticoagulant of sodium or lithium salt; with advanced micro atomizing technology to ensure heparin anticoagulant quickly acting in blood specimen, which provide clinical laboratory with immediate plasma specimen, therefore it is always used in emergency biochemical laboratory. In the meanwhile, due to small difference in the hem rheological changes nature of anticoagulant of heparin specimen, it is often used in hem rheological laboratory.





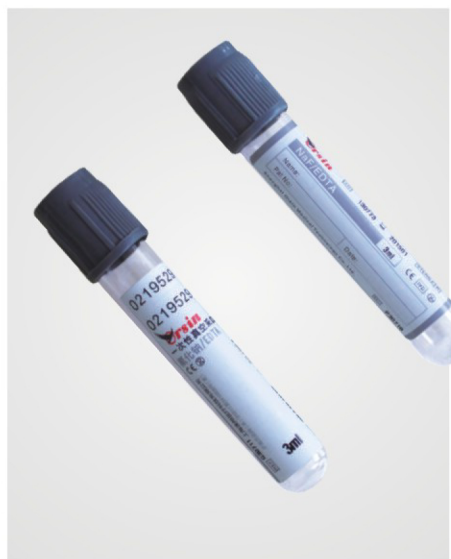
## 0.109mol/L 柠檬酸钠 ( 1 :9 ) Sodium Citrate ( 1 :9 )

蓝头管使用 0.109mol/L 柠檬酸钠缓冲体系抗凝, 抗凝剂与血液的精确体积比为1:9, 对采血管具有严格的要求, 主要用于凝血机制检查。为减少由试管材料引起的外源性凝血机制被激活, 蓝头管对试管内壁进行了独特的应力膜处理。抗凝剂稳定技术的运用则能严格控制微生物限度, 确保产品持续稳定。

Blue cap tube is with 0.109mol/L sodium citrate buffer system for anticoagulation, the accurate volume ratio between anticoagulant and blood in 1:9, and with strict requirements, which is mainly used in blood coagulation testing. To reduce the activation of extrinsic blood coagulation mechanism caused by the material of the test tube, the blue cap tubes have unique stress film treatment on the inner wall of the tube. The application of stable anticoagulant technology can strictly control the limit of microorganism, so as to ensure the continuous stability of products.



## 氟化钠 EDTA NaF/EDTA



灰头管摒弃了传统的草酸钾-氟化钠抗凝体系, 创造性地采用了全球技术领先的复合抗凝体系, 在保持传统灰头管抑制糖代谢, 防止糖降解的功能同时, 避免了外源性凝血及溶血的风险, 实现了血糖标本的长期稳定。

Grey cap tubes have abandoned the conventional potassium oxalate-NaF anticoagulation system and have creatively adopted the globally leading composite anticoagulation system. While having maintained the functions of inhibit glycometabolism and prevent glucose degradation of conventional grey cap tubes, they have avoided the risk of extrinsic blood coagulation and hemolytic, so as to ensure the long-time stability of blood glucose specimen.

## 全血类采血管 Whole Blood Collection Tube

在临床血液检查中,有一类检查以流动态的血液作为标本,不需要分离血浆或细胞,我们把适合这类检查的采血管称为全血类采血管。

全血类采血管在临床使用中表现的优劣,取决于抗凝系统对细胞体积、形态的维持。其中最具有代表性的是紫头管,除此之外,还有用于血沉实验的黑头管和动态血沉管。

In clinical blood tests, flowing blood is sometimes used as specimen, which doesn't need to separate out plasma or cell. This one is so called the whole blood collection tube. The advantage and disadvantage of whole blood collection tubes in clinical application depends to the volume and state of cell maintained by anticoagulation system. Among them, the most representative one is purple cap tube. In addition, there are black cap tubes for blood sedimentation tests and dynamic blood sedimentation tubes.

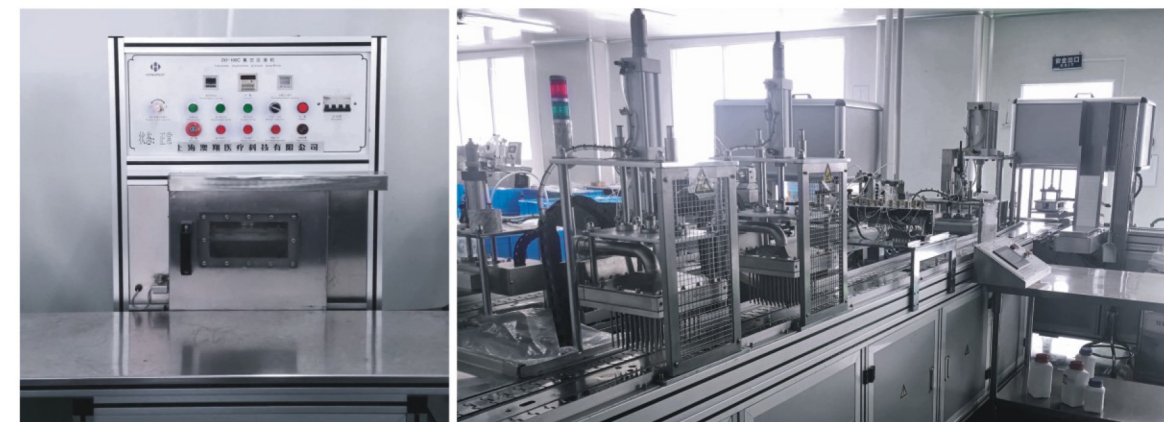


## EDTA-K2 EDTA-K3

紫头管中的抗凝剂为EDTA 盐。国际血液委员会推荐使用抗凝效率较高, 稳定性更强, pH 值与血液相对接近的乙二胺四乙酸·二钾(EDTA.K2)。

独一无二的内壁仿生活性膜处理, 有效地维持了血小板的活性稳定。微喷雾技术的运用降低了因血小板黏附与聚集而发生血小板损失和凝血的风险, 严格的微粒污染控制工艺杜绝了微粒污染对检验结果的影响。

Purple cap use EDTA salt as anticoagulant. ICSH recommends using EDTA.K2, which is with higher anticoagulation efficiency, stronger stability and relatively closer ph value with blood. The unique imitated life film treatment on its inner wall can effectively maintain the active stability of platelet. The application of micro atomizing technology has lowered the hazard of platelet loss and blood coagulation caused by platelet adherence and gathering. And the rigorous particle pollution control technology has completely eradicated the impact on test result caused by particle pollution.



## 0.129mol/L 柠檬酸钠(1:4) Sodium Citrate (1:4)

黑头管采用0.129mol/L 柠檬酸钠缓冲体系对血液标本进行抗凝, 用于“魏氏沉降法”进行血液沉降速率检测。抗凝剂与血液的体积比为1:4。包括提供直接标本的动态血沉管和需要标本转装的 75mm 短管。动态血沉管可在采血后直接上架读数或应用于动态血沉仪。

Black cap tubes, with 0.129mol/L sodium citrate buffer systems to carry out anticoagulation on blood specimen, are used for the testing blood sedimentation rate by We stergern me thod. The volume ratio between anticoagulant and blood is 1:4. They cover the dynamic blood sedimentation tube directly offering specimen and 75 mm short tubes needing specimen transfer. Dynamic blood sedimentation tube may read directly on the frame after blood collection, or be used in blood sedimentation unit.





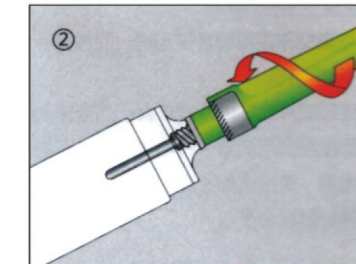
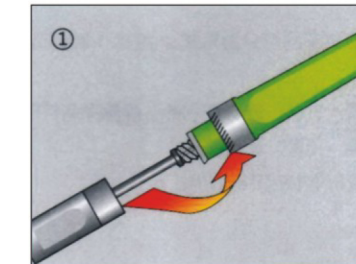


### 塑料管/玻璃管 PET/Glass

产品名称 Product name	容器尺寸 Container size	规格 Specifications	装箱尺寸 Packing dimensions
塑料管 PET	13X75	1ml-4ml	1000支/箱 44X33X19
			1200支/箱 50X35X18.5
			1800支/箱 50X35X26.5
			2400支/箱 50X35X35
	13X100	5ml-7ml	1000支/箱 56x33x19
			1200支/箱 50x35x24
			1800支/箱 50X35X35
			1000支/箱 57x34x21
	16X100	8ml-10ml	1200支/箱 50.5x40.5x23
			1800支/箱 50.5x40.5x35
			1000支/箱 57x34x21
			1200支/箱 50.5x40.5x23
	8X120	1.6ml	1200支/箱 45X35X27.5

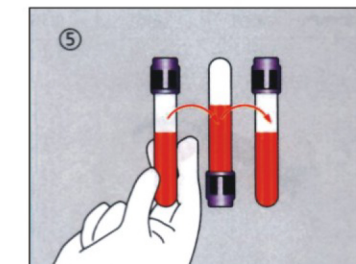
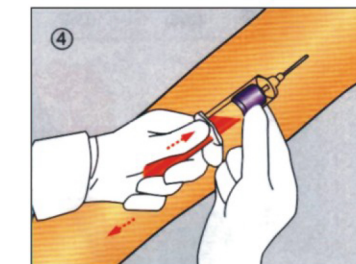
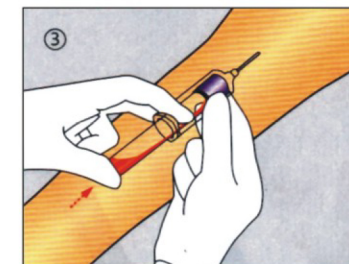
### 血液标本采集系列 真空采血管正确采血步骤

#### 一、笔式采血针采血方法



1、选择适宜的笔式双向采血针，双手握住笔式针两端的针套朝反方向拧开，去除一端白色针套（带胶套一端）。

2、将去除头套的针端按顺时针方向拧入套筒中。

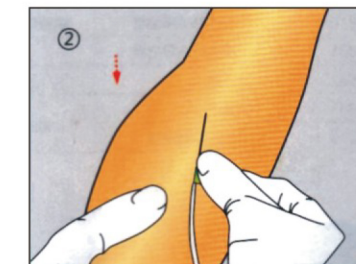
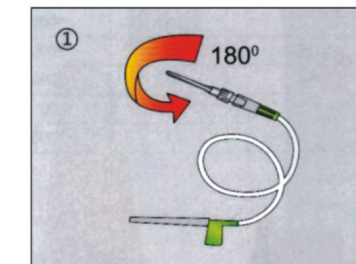
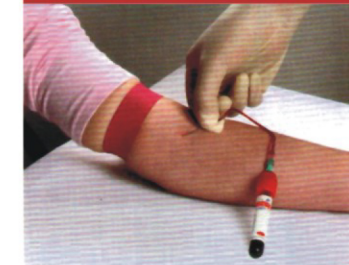


3、去除彩色端针，选择粗而直的静脉实施静脉穿刺；将真空采血管置入套筒中，食指和中指卡住套筒持针器的凸缘，拇指反方向施加压力于试管底，实施管塞穿刺。

4、当管内真空耗尽，血流便停止，此时左手拇指和中指捏住试管下部，用食指推持针器的凸缘，使管塞脱离采血针后端的针头，然后将试管从持针器取出。

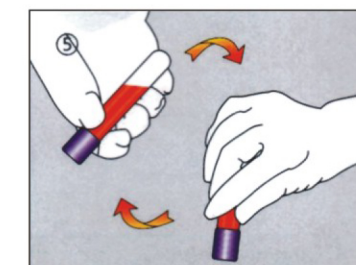
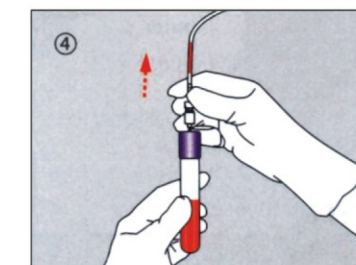
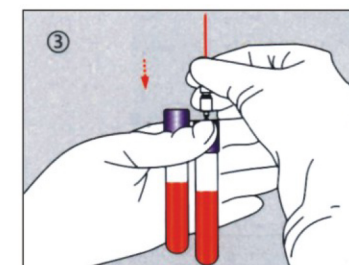
5、在取下采血管同时，立即将该采血管轻轻颠倒5-8次，使试管内预置的添加剂与血样充分混匀，但不可剧烈晃动以免造成标本溶血。

#### 二、软连接式采血针采血方法



1、顺时针180度拧紧软管与针座间接口，避免采血过程中漏真空或漏血。

2、选择粗而直的主静脉，进行静脉穿刺，穿刺成功后，可见回血。



3、将管塞穿刺针垂直刺入胶塞。

4、最后一管采至距离额定采血量0.5ml，拔静脉穿刺针，让软管内的血液流入采血管，再拔穿刺针。

5、拿取已采集完毕的采血管同时摇匀，摇匀方式为颠倒180度8次。

#### 建议采血顺序（按制备标准类型划分） Proposed sequence control for bleeding







## 一次性真空采血管产品特点

### Characteristics Of Disposable Vacuum Blood Collection Tubes

#### 一、前沿技术 优秀品质

Orsin一次性真空采血管经过特殊工艺处理,避免血细胞附着减少体外溶血,用于血清生化采血管血液凝固完全,离心后血清不含纤维蛋白丝,避免堵塞仪器吸样针孔,拔出管塞后管口无挂血现象;含抗凝剂的采血管血样与抗凝剂的比精确、抗凝剂稳定性好,采用雾化喷涂工艺,最大限度的增大血样与抗凝剂的接触面,避免血样凝固。

#### Leading Technology and Outstanding Quality

Through special process, Orsin disposable vacuum blood collection tubes may avoid blood cell attached on the wall and reduce in vitro hemolysis. The blood collection tubes used for serum biochemistry may cause blood completely coagulated and serum containing no fibrin threads after being centrifuged, so that the pinhole of suction syringe in the instrument cannot be jammed and there can be no blood left on the nozzle after tube plug is pulled out. For blood collection tubes with anticoagulant, blood sample can be accurately proportioned with the anticoagulant to perform outstanding stability of anticoagulant. The use of atomized spraying process can maximize the contact surface between blood sample and anticoagulant to avoid the blood sample being coagulated.

#### 二、制造精良 安全稳定

Orsin一次性真空采血管采用高质量试管帽和胶塞 机械化全自动操作和组装, 试管帽与胶塞不易分离, 防止标本污染。良好的生产、检验质量管理体系,最大限度保证产品的稳定性和可靠性。

#### Superior Workmanship and Secured Stability

Orsin disposable vacuum blood collection tubes use high quality tube caps and rubber plugs that are fully automatically operated and assembled so that the tube cap and rubber plug cannot be easily separated to avoid specimens being polluted. The stability and dependability of products can be best assured by sound production, inspection and quality.

#### 三、完美匹配 方便快捷

Orsin一次性真空采血管有13 X 75mm, 13 X 100mm, 16 X 100mm, 8 X 120mm多种标准规格供选择; 无需标本转移, 可实现原管上机, 原管标本保存, 为直接上机采血管特制胶塞, 方便机器直接穿刺, 严格的尺寸规格管理, 与各种进口和国产的自动化仪器、全自动分析前处理系统、各种LIS系统完美结合。

#### Perfect Matching and Great Easiness

Orsin disposable vacuum blood collection tubes have the standard specifications of 13\*75mm, 13\*100mm, 16\*100mm and 8\*120mm for choice. With no need of specimen transfer, the original tube can be put onto the instrument and the specimen in the original tube can be stored. The blood collection tubes directly put onto the instrument are made with special rubber plugs for the ease of direct puncture by the instrument. Supported by rigorous management on sizes and specifications, they can perfectly match the various imported and home-made automation instruments, pretreatment system of full automatic analysis, and LIS system.

#### 四、严控污染 保证质量

Orsin一次性真空采血管采用严格的微粒污染控制工艺, 杜绝和减少对检验结果的影响。Orsin 一次性真空采血管的抗凝剂采用领先的配制和添加技术, 能够使抗凝剂在二年内不变质, 不长菌, 确保产品品质稳定。

#### Rigorous Pollution Control and Assured Quality

Orsin disposable vacuum blood collection tubes adopt rigorous particle pollution control process to completely eradicate and reduce any impact on test results. The anticoagulant for Orsin disposable vacuum blood collection tubes is processed with the leading blending and adding technology to enable no deterioration and bacteria within two years, so as to ensure stable product quality.

#### 五、分离胶体 稳定可靠

Orsin一次性真空采血管中添加的医用分离胶, 自主研发, 工艺独特, 技术先进, 分离胶 -20°C-65°C, 性能十分稳定, 确保产品在运输, 使用过程中的安全、稳定、可靠。

#### Separation Gel of High Stability and Dependability

The medical separation gel for Orsin disposable vacuum blood collection tubes is developed by ourselves with distinctive process and advanced technology, which can give fairly stable performance under the temperature of -20°C--65°C, so as to ensure the safety, stability and dependability of products during transportation and service.

#### 六、方便识别 满足需求

Orsin 一次性真空采血管的头盖颜色和标签色标采用统一的颜色识别体系, 标签采用高质量材质制作, 沾水不脱落, 不易撕毁。

按照客户需求采用报告双号码或条形码, 标识符号清晰易辨, 方便检验人员和检验仪器识别和操作。可按要求预置不同码制的条形码, 匹配临床实验室信息管理系统, 提高工作效率, 减少人为误差。

#### Easy Identification to Meet Service Requirements

Orsin disposable vacuum blood collection tubes use unified color identification system for cap forehead and label color code. The label is made of high quality material so that it cannot be easily fallen off and torn up after getting wetted. Report of double number or barcode may be adopted responding to customer requirements. The identification symbols are clear and easily recognizable for the convenience of identification and operation for inspection persons and instruments. Barcode of different code system may be preset according to the requirements, so as to match the information management system of clinical laboratories for higher working efficiency and less personal errors.