



### 보사 (Head Office)

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that you just work with evacuated blood collection tube much easier and more conveniently in clinic laboratory, hospital and clinical center and even public health center at anytime.

**MPULAB™** is manufactured and sterilized as same facility through cutting-edge process technology.

**MPULAB™** system is designated for quick, safe, correct and hygienic blood collection without further handling requirements through user-friendly vacuum system.

The system is composed of sterilized vacuum tube, holder and multi sample needle to eliminate any possible risk while collection blood from patients. As the essential device for pre-analytic sample collection device, Ampulab system will offer users reliable result from the primary step for every analyzer.





# Serum Plain Tube



AMPULAB Serum tubes are coated with silicone and micronized silica particles to accelerate activate the coagulation process with 8~10 times gentle inversion for serum determinations in chemistry. Specially developed components on the wall make serum tubes reduce adherence of red blood cells to tube wall.

Samples processed in these tubes may also be used for routine blood screening, immunohematology, and diagnostic testing of serum for infectious disease.

Color	Code	Vol (ml)	Size (mm)	Additives	Packing Q'ty
	104101	4.0	13 x 75	Clot Activator	1,000pcs/Box
	106201	6.0	13 x 100	Clot Activator	1,000pcs/Box
	100301	10.0	16 x 100	Clot Activator	1,000pcs/Box

Serum Separation Gel Tube(SSGT)



AMPULAB Serum with Gel contains a barrier polymer in the base of the tube and this material causes it to move upward to the serum-clot interface forming a stable separation barrier during centrifugation. Serum may be aspirated directly from the collection tube eliminating the need for manual transfer to another container. In the primary tube and under recommended laboratory conditions, certain parameters remain stable for up to 48 hours.

Color	Code	Vol (ml)	Size (mm)	Additives	Packing Q'ty		
	103102	3.5	13 x 75	Gel / Clot Activator	1,000pcs/Box		
	105202	5.0	13 x 100	Gel / Clot Activator	1,000pcs/Box		
	108302	8.5	16 x 100	Gel / Clot Activator	1,000pcs/Box		

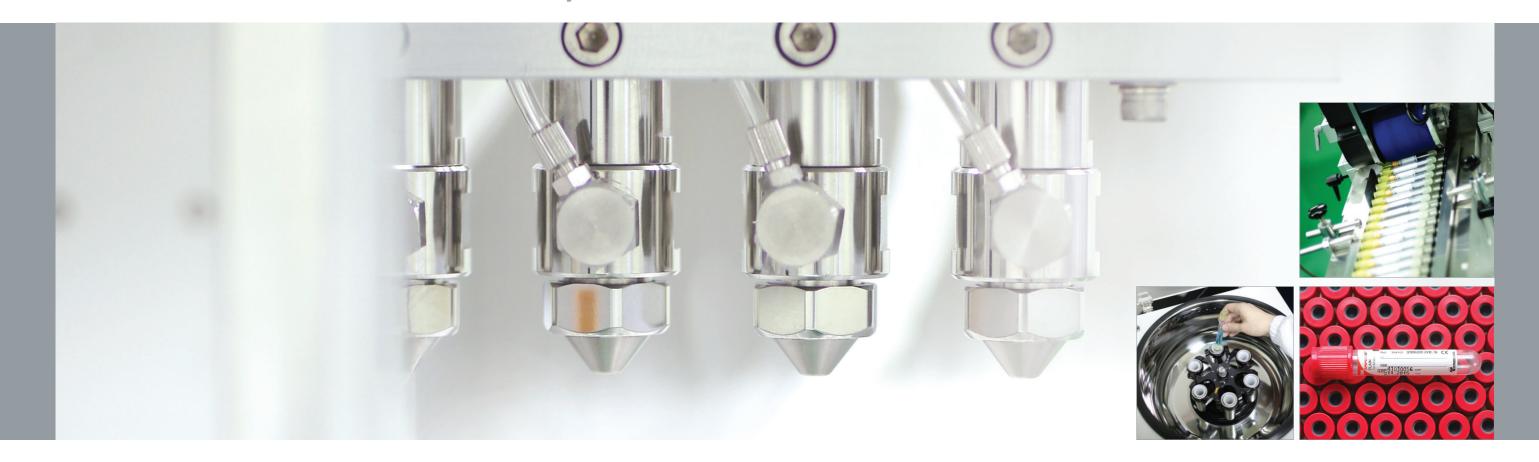
# EDTA Tube



AMPULAB EDTA Tubes are coated with K2-EDTA or K3-EDTA for blocking coagulation cascade by binding calcium ions in the blood sample. EDTA tubes must be inverted 8~10 times to assure complete mixing with blood for correct coagulation value. EDTA tubes are used for direct sampling analysis since erythrocytes and leucocytes are stable for 24 hours with EDTA while thrombocytes are stable for 6~8 hours. Blood smearing should be done within 3 hours after blood collection. EDTA tubes are for examination of whole blood in hematology.

Color	Code	Vol (ml)		Additives	Packing Q'ty
	201103	1.0	13 x 75	K2-EDTA 1.8mg	1,000pcs/Box
	202103	2.0	13 x 75	K2-EDTA 3.6mg	1,000pcs/Box
	203103	3.0	13 x 75	K2-EDTA 5.4mg	1,000pcs/Box
	204103	4.0	13 x 75	K2-EDTA 7.2mg	1,000pcs/Box
	206203	6.0	13 x 100	K2-EDTA 10.8mg	1,000pcs/Box
	200303	10.0	16 x 100	K2-EDTA 18.0mg	1,000pcs/Box
	201104	1.0	13 x 75	K3-EDTA 1.8mg	1,000pcs/Box
	202104	2.0	13 x 75	K3-EDTA 3.6mg	1,000pcs/Box
	203104	3.0	13 x 75	K3-EDTA 5.4mg	1,000pcs/Box
	204104	4.0	13 x 75	K3-EDTA 7.2mg	1,000pcs/Box
	206204	6.0	13 x100	K3-EDTA 10.8mg	1,000pcs/Box
	200304	10.0	16 x 100	K3-EDTA 18.0mg	1,000pcs/Box





# Coagulation Tube (Double Layer Tube)



AMPULAB Coagulation tubes are used for examination of coagulation

Coagulation tubes contain a buffered sodium citrate solution. It is available with a citrate concentration of 0.109 mol/l (3.2%) or 0.129 mol/l (3.8%). The choice of the concentration depends on the policy of the laboratories. The mixing ratio is 1 part citrate solution to 9 parts blood.

Color	Code	Vol (ml)	Size (mm)	Additives	Packing Q'ty
	301105	1.8	13 x 75	Sodium Citrate (0.109M, 3.2%) [Double Layer]	1,000pcs/Box
	302105	2.7	13 x 75	Sodium Citrate (0.109M, 3.2%) [Double Layer]	1,000pcs/Box
	303105	3.6	13 x 75	Sodium Citrate (0.109M, 3.2%) [Single Layer]	1,000pcs/Box
	304205	4.5	13 x 100	Sodium Citrate (0.109M, 3.2%) [Single Layer]	1,000pcs/Box
	301112	1.8	13 x 75	Sodium Citrate (0.109M, 3.8%) [Double Layer]	1,000pcs/Box
	302112	2.7	13 x 75	Sodium Citrate (0.109M, 3.8%) [Double Layer]	1,000pcs/Box
	303112	3.6	13 x 75	Sodium Citrate (0.109M, 3.8%) [Single Layer]	1,000pcs/Box
	304212	4.5	13 x 100	Sodium Citrate (0.109M, 3.8%) [Single Layer]	1,000pcs/Box

## Plasma Tube



## Plasma Separation Gel Tube (PSGT)



AMPULAB Plasma tubes are coated with lithium heparin or sodium heparin to inhibit clotting. Heparin activates antithrombin, thus blocking the coagulation cascade and producing a whole blood/plasma sample instead of clotted blood and serum. Lithium determination should not be performed in lithium heparin tubes. Samples collected in these tubes are used for plasma determinations in chemistry.

	Color	Code	Vol (ml)	Size (mm)	Additives	Packing Q'ty
		404106	4.0	13 x 75	Lithium Heparin 80 Unit	1,000pcs/Box
		406206	6.0	13 x 100	Lithium Heparin 120 Unit	1,000pcs/Box
		400306	10.0	16 x 100	Lithium Heparin 200 Unit	1,000pcs/Box
		404107	4.0	13 x 75	Sodium Heparin 80 Unit	1,000pcs/Box
		406207	6.0	13 x 100	Sodium Heparin 120 Unit	1,000pcs/Box
		400307	10.0	16 x 100	Sodium heparin 200 Unit	1,000pcs/Box

AMPULAB Plasma tubes with gel contain spray-coated lithium heparin and a polymer gel in the bottom for plasma separation. The specific gravity of this material can make the barrier gel move upward to the plasma – clot interface during centrifugation and it forms a stable barrier separating the plasma from cells. Samples processed in these tubes are used for plasma determinations in chemistry. Those tubes provide the convenience of gel separation with the added advantage of improved turnaround time.

Color	Code	Vol (ml)		Additives	Packing Q'ty
	403108	3.5	13 x 75	Gel /Lithium Heparin 70 Unit	1,000pcs/Box
	404208	4.5	13 x 100	Gel /Lithium Heparin 90 Unit	1,000pcs/Box
	408308	8.0	16 x 100	Gel /Lithium Heparin 160 Unit	1,000pcs/Box











AMPULAB ESGT tubes are EDTA with Gel and K2-EDTA which has a concentration of 1.8mg EDTA per 1ml blood. The Gel moves upward to Plasma-Blood cell interface forming a stable separating barrier during centrifugation. The plasma may be aspired directly from the collection tube eliminating the need for manual transfer to another container. and NAT tubes must be inverted 8 – 10 times to assure complete mixing with blood.

Color	Code	Vol (ml)		Additives	Packing Q'ty
	703114	3.5	13 x 75	K2 EDTA 6.3mg with Gel	1,000pcs/Box
	705214	5.0	13 x 100	K2 EDTA 9.0mg with Gel	1,000pcs/Box
	708314	8.5	16 x 100	K2 EDTA 15.3mg with Gel	1,000pcs/Box

## Glucose Preservation Tube



AMPULAB Glucose tubes are ideal for glucose determinations. The tubes contain an anticoagulant and a stabilizer (EDTA and Sodium Fluoride / Potassium Oxalate and Sodium Fluoride). AMPULAB glucose tubes are used for the analysis of blood sugar and lactate.

Color	Code	Vol (ml)		Additives	Packing Q'ty
	503109	3.0	13 x 75	NaF 9mg / Pot. Oxalate 6mg	1,000pcs/Box
	503110	3.0	13 x 75	NaF 9mg / K3-EDTA 4.8mg	1,000pcs/Box

## Blood Collection Needles & Holder



AMPULAB blood collection needles are single-use stainless steel with both sharp ends. They have a threaded hub that fits into the threads of needle holders. The end of needle has a lubricated point with silicone and is specially designated to enter the skin easily with less pain during venipuncture. AMPULAB multiple sample needles have a rubber sleeve covering non-patients end of needle that prevents leakage of blood into the holder during venipuncture.

### ■ AMPULAB Blood Collection Needle

Code	Sub-Code	Gauge	Color	Size	Length	Packing Q'ty	
		22G	Black	22G x 38	1 1/2"(38mm)	4,000pcs/Box	
3022	K	22G	Black	22G x 25	1" (25mm)	4,000pcs/Box	
	V	22G	Black	22G x 38	1 1/2"(38mm)	2,000pcs/Box	
		21G	Green	21G x 38	1 1/2"(38mm)	4,000pcs/Box	
3021	K	21G	Green	21G x 25	1" (25mm)	4,000pcs/Box	
	V	21G	Green	21G x 38	1 1/2"(38mm)	2,000pcs/Box	
3020		20G	Yellow	20Gx38	1 1/2"(38mm)	4,000pcs/Box	
3020	K	20G	Yellow	20Gx25	1" (25mm)	4,000pcs/Box	

### ■ AMPULAB Blood Collection Holder

Code	Name	Packing Q'ty
4001	Holder	2,000pcs/Box
4002	Holder (Safety type)	2,000pcs/Box
4003	Holder (Eclipse type)	800pcs/Box





AMPULAB ESR tubes contain 3.8% buffered tri-sodium citrate solution (0.129mol/l) and are provided in specially designated plastic tube for gamma irradiated sterilization. These tubes can be used for suspicious inflammatory reaction and development. The mixing ratio is 1 part citrate to 4 parts blood.

	Color	Code	Vol (ml)	Size (mm)	Additives	Packing Q'ty
		601111 1.6		13 x 75	Sodium Citrate (0.129M 3.8%)	1,000pcs/Box
Į		602111 2.4		13 x 75	Sodium Citrate (0.129M 3.8%)	1,000pcs/Box



# Newly Upgraded Gel by **SOYAGREENTEC**



No oily particle problem.

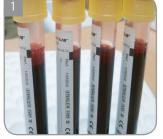
**Excellent Gel Invertibility** 

High resistance against irradiation

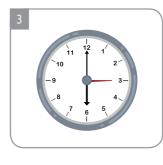
**Excellent recovery of TDM after** storage comparing to other material.



## SSGT(Serum Separation Gel tube) USER MANUAL









- **01**\_ Draw blood as specified volume.
- **02**\_ After drawing blood into tubes, surely make tubes inversion at least 8~10 times for good reaction of blood and clot activator.
- **03**\_ After inversion, keep tubes on the rack at least 30 min for clotting.
- **04**\_ Keep centrifugation speed 1,800~2,000 RCF(G) for 10 min.
- **05**\_ After centrifugation, the horizontal gel-barrier is the best for data.

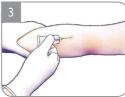
# How to use



Prepare all material for blood collection, and decap multi-needle.



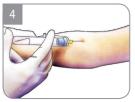
Fix multi-needle to the holder.



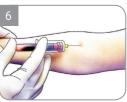
Select a site for venipuncture and clean it with the alcohol swab to keep sterile. After drying alcohol, hold the needle with its slanting surface of skin.



Finishing blood collection for one tube, remove the tube and put other tube into multi-needle. The holder and multi-needle should be fixed at this time.



During injection, inject a tube on the other side of multi-needle. The patient's arm should be downward at this time and release tourniquet while flowing blood.



Remove multi-needle from skin when finishing blood collection work, and stop bleeding with alcohol swab.

## **The Procedure of Blood Collection**

No Additive EDTA Coagulation Plasma Glucose Other Tube Serum(Gel)

## **Color Chart**

Color		1	1.6	1.8	2	2.4	2.7	3	3.5	3.6	4	4.5	5	6	8	8.5	10	
COIOI	Tube size(mm)	13*75	13*75	13*75	13*75	13*75	13*75	13*75	13*75	13*75	13*100	13*100	13*100	13*100	16*100	16*100	16*100	Additives
	Serum																	Clot activator
	Serum(Gel)																	Clot activator + Separation Gel
A MARCE	Haematology																	K3EDTA K2EDTA
	Coagulation																	Trisodium Citrate 0.129M 9:1, 3.8% Trisodium Citrate 0.109M 9:1, 3.2%
	Plasma																	Lithium Heparin, Sodium Heparin
	Plasma(Gel)																	Lithium Heparin + Separation Gel
	Glucose																	Sodium Fluoride + Potassium oxalate
	ESR																	Trisodium Citrate 0.129M 4:1, 3.8%
S A S S	ESGT																	K2 EDTA with Gel

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