

BD Vacutainer® Serum Tubes

Serum tubes

In order to obtain serum samples from plastic tubes, the tube must have a coagulation activator added. As the plastic surface alone is insufficient to trigger the coagulation within an acceptable time, BD Vacutainer® Plus plastic serum tubes have silica particles added for this purpose. These tubes are marked with the acronym CAT (Clot Activator Tube).

Clotting times

The recommended minimum time for the coagulation of samples from patients who have not been treated with anticoagulants is 60 minutes for serum (red) and 5 minutes for thrombin (orange) tubes.

Centrifuging conditions:

≤ 1200 g for 10 minutes at 18-25°C for glass serum tubes.

≤ 1300 g for 10 minutes at 18-25°C for plastic serum tubes.

Mixing recommendation:

Both plastic and glass serum tubes should be gently inverted 180° and back 5-6 times.



Product information

Cat No.	Volume (ml)	Size (mm)	Additive	Material	Label	Closure
368492	2	13x75	Clot Activator, Silicone Coated	PET	Paper	
366668	3	13x75	Clot Activator, Silicone Coated	PET	Paper	
367812	4	13x75	Clot Activator, Silicone Coated	PET	Paper	
365904	4	13x75	Clot Activator, Silicone Coated	PET	See Through	
367814	5	13x100	Clot Activator, Silicone Coated	PET	Paper	
367815	6	13x100	Clot Activator, Silicone Coated	PET	Paper	
367819	6	13x100	Clot Activator, Silicone Coated	PET	See Through	
367837	6	13x100	Clot Activator, Silicone Coated	PET	Block	
367896	10	16x100	Clot Activator, Silicone Coated	PET	Paper	
367820	10	16x100	Clot Activator, Silicone Coated	PET	Paper	
367895	10	16x100	Clot Activator, Silicone Coated	PET	Block	

All tubes are supplied in boxes of 100 / cases of 1000.

BD Vacutainer® SST™ II Advance Tubes

During the centrifugation of the BD Vacutainer® SST™ II Advance tubes, an inert gel separates the serum and the blood clot preventing the contamination of the serum from the separated cellular components. For example, the serum for certain analytes such as potassium, phosphorus and glucose must be separated from the cells within a few hours - otherwise the results will be significantly distorted. Using BD SST™ II Advance tubes routine analytes in clinical chemistry such as potassium and glucose are still stable after a week of storage at 2-8°C. Clinical evaluations of special chemistry demonstrate a high degree of analyte stability with the acrylic gel in the BD SST™ II Advance, with detection of >90% of the therapeutic drugs and other special analytes (proteins/peptides, steroids and vitamins) tested.

As a result of the type of gel used in the BD Vacutainer® SST™ II Advance tubes, short centrifugation times of 5 minutes at 3000 g can be achieved. The stability of the gel barrier is a distinct advantage during transport and storage.

The main advantages of gel tubes versus non-gel tubes are:

- Stable barrier between serum and clotted blood, therefore better analyte stability
- Better sample quality
- Optimisation of the work flow: Short centrifugation time, sample processing and archiving in the primary tube
- No possibility of misidentification due to the use of secondary tubes

Clotting times

The minimum recommended coagulation time for BD Vacutainer® SST™ II Advance tubes for patients who have not received anticoagulation treatment is 30 minutes.

Centrifugation conditions:

SSTII: 1300-2000 g for 10 minutes or alternatively, according to the BD study V57228 3000 g for 5 minutes at 18-25°C1. SST:1100-1300 g for 10 minutes at 18 - 25°C



Mixing recommendation:

Serum Separation Tubes should be gently inverted 180° and back 5-6 times.

Effects of temperature

BD Vacutainer® SST™ II Advance should be stored at 4-25°C and protected from direct sunlight during storage. Cooling of the tube by or during centrifuging can affect the movement capability of the gel. The optimum separation of serum and coagulated blood is achieved at a temperature of 20-25°C.

Clot activator

BD Vacutainer® SST™ II Advance tubes contain silica particles.

Studies

We would be pleased to supply study documentation in relation to BD Vacutainer® SST™ II Advance tubes on request.

BD Vacutainer® SST™ II Advance Tubes

Product information

Cat No.	Volume (ml)	Size (mm)	Additive	Material	Label	Closure
367957	3.5	13x75	Clot Activator and Gel Separator	PET	Paper	
368498	3.5	13x75	Clot Activator and Gel Separator	PET	See Through	
367956	3.5	13x75	Clot Activator and Gel Separator	PET	Block	
368879	4	13x100	Clot Activator and Gel Separator	PET	See Through	
367955	5	13x100	Clot Activator and Gel Separator	PET	Paper	
366566	5	13x100	Clot Activator and Gel Separator	PET	See Through	
367954	5	13x100	Clot Activator and Gel Separator	PET	Block	
367953	8.5	16x100	Clot Activator and Gel Separator	PET	Paper	
366644	8.5	16x100	Clot Activator and Gel Separator	PET	See Through	
367958	8.5	16x100	Clot Activator and Gel Separator	PET	Block	

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BD Vacutainer® SST™ Tubes

Product information

Cat No.	Volume (ml)	Size (mm)	Additive	Material	Label	Closure
367983	3.5	13x75	Clot Activator and Gel Separator	PET	Paper	
367986	5	13x100	Clot Activator and Gel Separator	PET	Paper	
367974	6	16x100	Clot Activator and Gel Separator	PET	Paper	
367988	8.5	16x100	Clot Activator and Gel Separator	PET	Paper	
367985	10	16x125	Clot Activator and Gel Separator	PET	Paper	

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BD Vacutainer® EDTA Tubes

EDTA

EDTA salts (ethylene diamine tetra acetic acid) are used for the anticoagulation of whole blood for hematological investigations as the cellular components of the blood are particularly well preserved by EDTA. It works as an anticoagulant as it forms complexes with metal ions such as calcium, therefore inhibiting the coagulation cascade. Anticoagulation with EDTA is irreversible.

The EDTA concentration in BD Vacutainer® tubes is 1.8 mg per mL of complete blood when the fill level is correct, as recommended by the ICSH (International Council of Hematology)¹ and the CLSI (Clinical and Laboratory Standards Institute).

Mixing the tube

Correct mixing (8-10 inversions) of the EDTA tube immediately after the blood sample has been taken is extremely important to avoid microclotting.



Product information

Cat No.	Volume (ml)	Size (mm)	Additive	Material	Label	Closure
367841	2	13x75	K ₂ EDTA 3.6 mg	PET	Paper	
368841	2	13x75	K ₂ EDTA 3.6 mg	PET	Paper	
368274	2	13x75	K ₂ EDTA 3.6 mg	PET	See Through	
367858	2	13x75	K ₂ EDTA 3.6 mg	PET	See Through	
367856	3	13x75	K ₂ EDTA 5.4 mg	PET	Paper	
368499	3	13x75	K ₂ EDTA 5.4 mg	PET	See Through	
368857	3	13x75	K ₂ EDTA 5.4 mg	PET	Block	
367838	3	13x75	K ₂ EDTA 5.4 mg	PET	Block	
367861	4	13x75	K ₂ EDTA 7.2 mg	PET	Paper	
367844	4	13x75	K ₂ EDTA 7.2 mg	PET	Paper	
367862	4	13x75	K ₂ EDTA 7.2 mg	PET	See Through	
367839	4	13x75	K ₂ EDTA 7.2 mg	PET	Block	
367863	6	13x100	K ₂ EDTA 10.8 mg	PET	Paper	
365900	6	13x100	K ₂ EDTA 10.8 mg	PET	See Through	
367525	10	16x100	K ₂ EDTA 18.0 mg	PET	Paper	
366643	10	16x100	K ₂ EDTA 18.0 mg	PET	See Through	

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