



Helping all people
live healthy lives

BD Vacutainer®

Venous Blood Collection Tubes





Why BD Vacutainer® Plus Plastic Tubes?

There has been an increasing customer preference for safety-engineered product solutions and improved clinical performance. These preferences are being driven by marketplace trends. It is the goal of BD to provide customers with the highest quality products that are clinically proven and medically necessary.

- **Clinical Expertise:** The efficacy, performance, and ease of use of **BD Vacutainer® Plus Plastic Tubes** are **clinically proven** and supported by more than 100 clinical studies involving a vast array of analytes and diagnostic instruments. Your BD Sales Consultant can provide further information and documentation from our library of clinical data.
- **Experience:** The BD legacy of innovative medical technology dates back more than a century. Most notable of our early blood collection innovations is the introduction and subsequent patent in 1949 of **the world's first blood collection tube**. The first BD plastic blood collection tube was introduced in 1991. This marked another technological achievement from BD that followed years of design, testing, and clinical trial evaluations.

BD produces in excess of 3.5 billion tubes annually, earning it the designation of the world's largest manufacturer of evacuated blood collection tubes. As a major worldwide medical device manufacturer, BD prides itself in manufacturing operations that maintain the highest standards for quality and efficiency. All BD Diagnostics - Preanalytical Systems manufacturing sites have achieved and maintain ISO 9001:2000 certification.

- **Compatibility:** To ensure that BD Vacutainer® Plus Plastic Tubes are compatible with major diagnostic systems, BD maintains ongoing discussions with the instrument manufacturers who are on the cutting edge of tomorrow's diagnostic technologies.
- **Safety:** BD Vacutainer® Plus Plastic Blood Collection Tubes are proven to be a safer alternative to glass. Our plastic tubes are **virtually break resistant***, thus helping to protect healthcare personnel from injury and exposure to bloodborne pathogens.

The BD Vacutainer® Hemogard™ Closure is a safety-engineered closure, featuring an integrated shield that prevents human contact with blood on the stopper or tube rim and effectively guards against blood splatter and splashing.

- **Cost Effectiveness:** BD Vacutainer® Plus Plastic Tubes can be disposed of safely and efficiently by incineration, thereby **reducing medical waste disposal costs**. The durability and safety of BD Vacutainer® Plus Plastic Tubes help to decrease turnaround time and improve laboratory efficiency by providing a high quality specimen and by helping to minimize risk of bloodborne pathogen infection to the laboratorian.

LEGEND

- ✓ Indicates part of the BD Best Practice Formulary
- G Indicates a glass tube
- P Paper Label
- ST See Thru Label



BD Vacutainer®
Hemogard™
Tube Closure



Conventional
Tube Stopper

▲ BD CLINICAL ADVANTAGE:

▲ What is the BD Best Practice Formulary?

The BD Best Practice Formulary (BPF), as it relates to BD Vacutainer® Blood Collection Tubes, was developed to provide customers with a condensed yet comprehensive array of BD Vacutainer® Blood Collection Tubes for virtually every clinical need. Each tube chosen for inclusion in the BPF meets the demanding requirements of today's complex diagnostic instruments and fits within the current clinical guidelines of the scientific and medical communities.

The BD Best Practice Formulary provides the optimal offering for all of your clinical needs.

SST



BD Vacutainer® SST™ Tubes contain spray-coated silica and a polymer gel for serum separation. They are used for serum determinations in chemistry.

BD Vacutainer® SST™ Tubes provide an efficient means of serum sample preparation and help to improve laboratory workflow.

Reference #	Tube Size (mm)	Draw Volume (mL)	Closure		Label type
			Type	Color	
367983 ✓	13x75	3.5			P
367981 ✓	13x75	3.5			P
367977 ✓	13x100	4.0			P
367986 ✓	13x100	5.0			P
367989	13x100	5.0			ST
367974	16x100	6.0			P
367975	16x100	7.0			P
367988 ✓	16x100	8.5			P
367991	16x100	8.5			ST
Transport tube					
367987	16x100	7.5			P
367985	16x125	10.0			P



PST

BD Vacutainer® PST™ Tubes contain spray-coated lithium heparin and a gel for plasma separation. They are used for plasma determinations in chemistry.

Reference #	Tube Size (mm)	Draw Volume (mL)	Closure		Label type
			Type	Color	
367960 ✓	13x75	3.0			P
368056 NEW	13x75	3.0			P
367961	13x100	3.5			P
367962 ✓	13x100	4.5			P
367963	13x100	4.5			ST
367964 ✓	16x100	8.0			P

▲ BD CLINICAL ADVANTAGE:

BD Vacutainer® PST™ Lithium Heparin Tubes eliminate the need to wait for a clot to form, making it an ideal tube for STAT procedures, as well as for patients receiving anticoagulant therapy. The BD Vacutainer® PST™ Tube still provides the convenience of gel separation with the added advantage of improved turnaround times.

EDTA

BD Vacutainer® spray-coated K₂EDTA Tubes are used for whole blood hematology determinations and immunohematology testing.



Reference #	Tube Size (mm)	Draw Volume (mL)	Closure		Label type
			Type	Color	
367842	13x75	2.0			ST
367841 ✓	13x75	2.0			P
367859	13x75	3.0			ST
367856	13x75	3.0			P
367835	13x75	3.0			P
367862	13x75	4.0			ST
367861 ✓	13x75	4.0			P
367844 ✓	13x75	4.0			P
367863	13x100	6.0			P
367899 ✓	13x100	6.0			P
366643 NEW	16x100	10.0			ST

BD Vacutainer® PPT™ Tube - for molecular diagnostic testing

362788 ✓	13x100	5.0		Pearl White	Mylar Label
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▲ BD CLINICAL ADVANTAGE:

K₂EDTA is the “anticoagulant of choice in specimen collection and blood cell counting” according to both NCCLS and the International Council for Standardization in Haematology (ICSH)^{1,2}. It was chosen for the following reasons: 1) K₃EDTA results in greater RBC shrinkage; 2) K₃EDTA produces a larger increase in cell volume on standing; and 3) K₃EDTA is a liquid additive and will result in the dilution of the specimen. Results of directly measured values can be 1-2% lower than results with K₂EDTA. K₂EDTA is sprayed onto the interior of the plastic tube and like K₃EDTA requires 8-10 inversions for thorough mixing of blood with the anticoagulant.

¹ NCCLS, Evacuated Tubes and Additives for Blood Specimen Collection – Fifth Edition; Approved Standard. NCCLS documentation H1-A5, Vol. 23, No. 33, Dec. 2003.

² International Council for Standardization in Haematology Expert Panel on Cytometry. Recommendation of the International Council for Standardization in Haematology for ethylenediaminetetraacetic acid anticoagulation for blood cell counting and sizing. Am J Clin Pathol 1993; 100:371-372.



LEGEND

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- P Paper Label
- ST See Thru Label



BD Vacutainer®
Hemogard™
Tube Closure



Conventional
Tube Stopper



Serum

BD Vacutainer® Plus Plastic Serum Tubes have spray-coated silica and are used for serum determinations in chemistry, serology, and immunohematology.

Reference #	Tube Size (mm)	Draw Volume (mL)	Closure		Label type	
			Type	Color		
366668 NEW	13x75	3.0			P	
366381 ⁶	10.25x64	3.0			P	
367812 ✓	13x75	4.0			P	
367814	13x100	5.0			P	
367819	13x100	6.0			ST	
367815 ✓	13x100	6.0			P	
366431 ⁶	13x100	7.0			P	
367820 ✓	16x100	10.0			P	
366430 ⁶ ✓	16x100	10.0			P	
Secondary/Discard tube (No additive)						
366703 NEW	13x75	3.0			Clear	P

Heparin



BD Vacutainer® Heparin Tubes are spray-coated with either lithium heparin or sodium heparin and are used for plasma determinations in chemistry.



Reference #	Additive Lithium Heparin	Tube Size (mm)	Draw Volume (mL)	Closure		Label type	
				Type	Color		
366664 NEW	34 USP	13x75	2.0			P	
366667 NEW	51 USP	13x75	3.0			P	
367884 ✓	68 USP	13x75	4.0			P	
367886	87 USP	13x100	6.0			P	
367889	87 USP	13x100	6.0			ST	
367880	144 USP	16x100	10.0			P	
Sodium Heparin							
367871 ✓	68 USP	13x75	4.0			P	
367872	68 USP	13x75	4.0			ST	
367878	86 USP	13x100	6.0			P	
367879	86 USP	13x100	6.0			ST	
367874	143 USP	16x100	10.0		P		

Citrate

BD Vacutainer® Citrate Tubes with 3.2% buffered sodium citrate solution are used for routine coagulation studies.

Reference #	Tube Size (mm)	Draw Volume (mL)	Closure		Label type
			Type	Color	
363080	13x75	1.8		Clear	P
363083 ✓	13x75	2.7			P



▲ BD CLINICAL ADVANTAGE:






Sodium citrate concentrations can have significant effects on APTT and PT assays especially with patients receiving IV heparin therapy and when responsive reagents are used. For this reason it is very important that laboratories determine their normal range of APTT and PT based on one citrate concentration and consistently use this concentration for all patient samples. BD offers only the 3.2% citrate concentration, as recommended by NCCLS.¹

¹ NCCLS, Collection, Transport and Processing of Blood Specimens for Coagulation Testing and General Performance of Coagulation Assays - Third Edition; Approved Guideline. NCCLS documentation H21-A3, Vol. 18, No. 20, Dec. 1998.

Glucose

BD Vacutainer® Fluoride Tubes contain a glycolytic inhibitor and are used for glucose determinations on plasma.


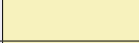

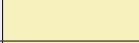

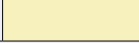



















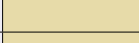









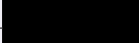







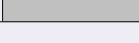



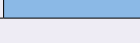


Reference #	Additives		Tube Size (mm)	Draw Volume (mL)	Closure		Label type
	Potassium oxalate (mg)	Sodium Fluoride (mg)			Type	Color	
367921	4.0	5.0	13x75	2.0			P
367587 ✓	—	3.0 with 6.0 mg Na ₂ EDTA	13x75	2.0			P
367922 ✓	8.0	10.0	13x75	4.0			P
368587 ✓	8.0	10.0	13x75	4.0			P
367925	11.8	14.8	13x100	6.0			P



Specialty Tubes

BD Vacutainer® Specialty Tubes

Reference #	Additive	Tube Size (mm)	Draw Volume (mL)	Closure		Label type
				Type	Color	
Blood banking studies, HLA phenotyping, DNA and paternity testing						
364012 ^G	ACD-B*	10.25x64	3.0			P
364606 ^G	ACD-A**	16x100	8.5			P
364816 ^G	ACD-B*	13x100	6.0			P
Serum tubes for stat chemistry determinations with thrombin additive and silicone-coated interiors						
367776 ^G	1.4 NIH units	13x75	3.0			P
367766 ^G	1.4 NIH units	13x75	5.3			P
367755 ^G	1.4 NIH units	13x100	7.0			P
366525 ^G	2.0 NIH units	16x100	10.0			P
Trace element testing						
368380 NEW	Serum (spray coated silica)	13x100	6.0			P
368381 NEW	K ₂ EDTA 10.8 mg	13x100	6.0			P
369735 ^G	Sodium Heparin 100 USP units	13x100	7.0			P
369736 ^G	Na ₂ EDTA 10.5 mg	13x100	7.0			P
369737 ^G	Serum (no additive)	13x100	7.0			P
Lead testing						
367855	K ₂ EDTA 5.4 mg	13x75	3.0			P
367734 ^G	Sodium Heparin 72 USP units	13x75	5.0			P
Fibrin Degradation Product (FDP)						
366478 ^G	Thrombin (20 NIH units)/Soybean trypsin inhibitor (3670 units)	13x75	2.0			P
Whole blood microbiology Sodium Polyanetholesulfonate (SPS)						
366404 ^G	0.68 mL	10.25 x 82	3.32			P
364960 ^G	1.7 mL	16x100	8.3			ST
Westergren sedimentation rate determination Buffered Citrate (3.8%)						
369741 ^G	0.6 mL	13x75	2.4			P
366465 ^G	1.0 mL	13x100	4.0			P
Sterile Exterior Pouch						
366401 ^G	Red – silicone-coated	16x100	10.0			P
	Lavender – K ₃ EDTA (0.081mL)	13x100	7.0			P
Whole blood activated clotting time determinations						
366522 ^G	Silaceous Earth (12 mg)	13x75	2.0			ST
Citrate, Theophylline Adenosine Dipyridamole (CTAD) specialized platelet testing						
367946 ^G	Buffered Sodium Citrate (0.109M, 3.2%), theophylline, adenosine, dipyridamole (0.3mL)	13x75	2.7			P
367947 ^G		13x75	4.5			P

* ACD (Acid Citric Dextrose) Solution B consists of trisodium citrate, 13.2 g/L, citric acid, 4.8 g/L, and dextrose, 14.7 g/L.

** ACD Solution A consists of trisodium citrate, 22.0 g/L, citric acid, 8.0 g/L, and dextrose, 24.5 g/L.

Trust BD Vacutainer®

Family of products you can rely on



LabNotes – A quarterly newsletter, published by **BD Diagnostics - Preanalytical Systems**, to keep readers current on safety and efficiency issues in the clinical laboratory.

Clinical Documentation – More than 100 clinical studies on a vast array of analytes document the efficacy, performance characteristics, and ease of use of BD Vacutainer® tubes.

TechTalk – A news bulletin to address frequently asked technical questions with a focus on reducing preanalytical variables.

Blood Collection Pocket Cards – Handy, laminated pocket cards provide easy reference for: order of draw, tube additive guide, troubleshooting hints for blood collection, best sites for venipuncture, and many more.

Blood Education Wall Charts – Instructional wall charts to help educate staff members.

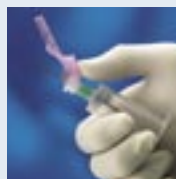
To learn more about the full product offering of BD Vacutainer® Specimen Collection Products or the educational materials and services offered by BD Diagnostics-Preanalytical Systems, please contact your local BD Sales Consultant.

BD Technical Services: **1.800.631.0174**

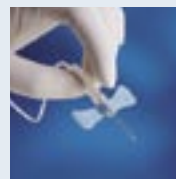
BD Customer Service: **1.888.237.2762**

www.bd.com/vacutainer

Acquaint yourself with the full line of BD Vacutainer® Specimen Collection Products



BD Vacutainer® Eclipse™ Blood Collection Needle



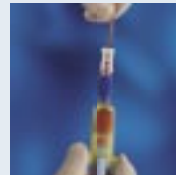
BD Vacutainer® Push Button Blood Collection Set



BD Vacutainer® One Use Holder



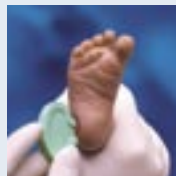
BD Vacutainer® Blood Transfer Device



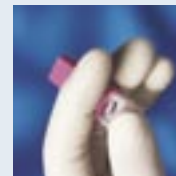
BD Vacutainer® Luer-Lok™ Access Device



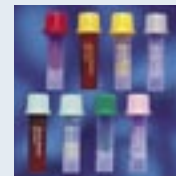
BD Vacutainer® Urine Analysis Preservative Tubes



BD Microtainer® Quikheel™ Lancet



BD Microtainer® Genie™ Lancet



BD Microtainer® Tubes with BD Microgard™ Closure



BD Diagnostics
Preanalytical Systems

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