

BD BACTEC™ Plus Aerobic/F Culture Vials **Soybean-Casein Digest Broth in a Plastic Vial**



R_x Only



8089074(05)

2019-09

English

INTENDED USE

BD BACTEC™ Plus Aerobic/F medium is used in a qualitative procedure for the aerobic culture and recovery of microorganisms (bacteria and yeast) from blood. The principal use of this medium is with the BD BACTEC fluorescent series instruments.

SUMMARY AND EXPLANATION

The sample to be tested is inoculated into one or more vials which are inserted into the BD BACTEC fluorescent series instrument for incubation and periodic reading. Each vial contains a chemical sensor which can detect increases in CO₂ produced by the growth of microorganisms. The sensor is monitored by the instrument every ten minutes for an increase in its fluorescence, which is proportional to the amount of CO₂ present. A positive reading indicates the presumptive presence of viable microorganisms in the vial. Detection is limited to microorganisms that will grow in a particular type of medium.

Resins have been described for the treatment of blood specimens both prior to and after their inoculation into culture media. Resins have been incorporated into BD BACTEC culture media to enhance recovery of organisms without a need for special processing.¹⁻³

PRINCIPLES OF THE PROCEDURE

If microorganisms are present in the test sample inoculated into the BD BACTEC vial, CO₂ will be produced when the organisms metabolize the substrates present in the vial. Increases in the fluorescence of the vial sensor caused by the higher amount of CO₂ are monitored by the BD BACTEC fluorescent series instrument. Analysis of the rate and amount of CO₂ increase enables the BD BACTEC fluorescent series instrument to determine if the vial is positive, i.e., that the test sample contains viable organisms.

REAGENTS

The BD BACTEC culture vials contain the following reactive ingredients prior to processing:

List of Ingredients	BD BACTEC™ Plus Aerobic/F (442023)
Processed Water	30 mL
	w/v
Soybean-Casein Digest Broth	3.0%
Yeast Extract	0.25%
Amino Acids	0.05%
Sugar	0.2%
Sodium Polyanetholsulfonate (SPS)	0.05%
Vitamins	0.025%
Antioxidants/Reductants	0.005%
Nonionic Adsorbing Resin	13.4%
Cationic Exchange Resin	0.9%

All BD BACTEC media are dispensed with added CO₂.

Warnings and Precautions:

The prepared culture vials are for *in vitro* diagnostic use.

This product contains dry natural rubber.

Pathogenic microorganisms, including hepatitis viruses and Human Immunodeficiency Virus, may be present in clinical specimens. "Standard Precautions"⁴⁻⁷ and institutional guidelines should be followed in handling all items contaminated with blood.

Prior to use, each vial should be examined for evidence of contamination such as cloudiness, bulging or depressed septum, or leakage. DO NOT USE any vial showing evidence of contamination. A contaminated vial could contain positive pressure. If a contaminated vial is used for direct draw, gas or contaminated culture media could be refluxed into the patient's vein. Vial contamination may not be readily apparent. If a direct draw procedure is used, monitor the process closely to avoid refluxing materials into the patient.

Prior to use, the user should examine the vials for evidence of damage or deterioration. Vials that are cracked or leaking, or display turbidity, contamination, or discoloration (darkening) should not be used. On rare occasions, a vial neck may be cracked and the neck may break during removal of the flip-off cap or in handling. Also, on rare occasions a vial may not be sealed sufficiently. In both cases the contents of the vials may leak or spill, especially if the vial is inverted. If the vial has been inoculated, treat the leak or spill with caution, as pathogenic organisms/agents may be present. Before discarding, sterilize all inoculated vials by autoclaving.

Positive culture vials for subculturing or staining, etc.: before sampling it is necessary to release gas which often builds up due to microbial metabolism. Sampling should be performed in a biological safety cabinet if possible, and appropriate protective clothing, including gloves and masks, should be worn. See Procedure section for more information on subculturing.

To minimize the potential of leakage during inoculation of specimen into culture vials, use syringes with permanently attached needles or BD Luer-Lok™ tips.

Molecular tests performed on positive blood cultures will detect both viable and non-viable organisms commonly found in culture media. Therefore, Molecular test results should be evaluated in conjunction with Gram Stain results in accordance with standard-of-care practices as well as manufacturer's instructions for use.

Storage Instructions

The BD BACTEC vials are ready for use as received and require no reconstitution or dilution. Store in a cool, dry place (2–25 °C), **out of direct light**.

SPECIMEN COLLECTION

The specimen must be collected using sterile techniques to reduce the chance of contamination. The recommended specimen volume is 8–10 mL. It is recommended that the specimen be inoculated into the BD BACTEC vials at bedside. A 10cc or 20cc syringe with a BD Luer-Lok brand tip is used to draw the sample, or a BD Vacutainer® Brand Needle Holder and a BD Vacutainer Brand Blood Collection Set, BD Vacutainer Safety-Lok™ Blood Collection Set or other tubing "butterfly" set may be used. If using a needle and tubing set (direct draw), carefully observe the direction of blood flow when starting sample collection. The vacuum in the vial will usually exceed 10 mL, so the user should monitor the volume collected by means of the 5 mL graduation marks on the vial label. Sample volumes as low as 3 mL can be used, however, recovery will not be as great as with larger volumes. **The inoculated BD BACTEC vial should be transported to the laboratory as quickly as possible.**

PROCEDURE

Remove the flip-off cap from the BD BACTEC vial top and inspect the vial for cracks, contamination, excessive cloudiness in medium, and bulging or indented septums. **DO NOT USE** if any defect is noted. Before inoculating, swab the septum with alcohol (iodine is **NOT** recommended). Aseptically inject or draw directly 8–10 mL of specimen per vial. If sample volumes of 3–7 mL are used, recovery will not be as great as with larger volumes (see Limitations of the Procedure). **Inoculated aerobic vials should be placed in the BD BACTEC fluorescent series instrument as soon as possible** for incubation and monitoring. If placement of an inoculated vial into the instrument has been delayed and visible growth is apparent, it should not be tested in the BD BACTEC fluorescent series instrument, but rather it should be subcultured, Gram-stained and treated as a presumptively positive vial.

Vials entered into the instrument will be automatically tested every ten minutes for the duration of the testing protocol period. Positive vials will be determined by the BD BACTEC fluorescent series instrument and identified as such (see the appropriate BD BACTEC Fluorescent Series Instrument User's Manual). The sensor inside the bottle will not appear visibly different in positive and negative vials, however the BD BACTEC fluorescent series instrument can determine a difference in fluorescence.

If at the end of the testing period a negative vial appears visually positive (i.e., chocolated blood, bulging septum, lysed and/or very darkened blood in BD BACTEC Plus Aerobic/F medium), it should be subcultured and Gram-stained and treated as a presumptively positive vial.

Positive vials should be subcultured and Gram-stained. In a great majority of cases, organisms will be seen and a preliminary report can be made to the physician. Subcultures to solid media and a preliminary direct antimicrobial susceptibility test may be prepared from fluid in the BD BACTEC vials.

Subculturing: Prior to subculturing, put the vial in an upright position, and place an alcohol wipe over the septum. To release pressure in the vial, use an appropriate venting unit (BD catalog # 249560) or equivalent. The needle should be removed after the pressure is released and before sampling the vial for subculture. The insertion and withdrawal of the needle should be done in a straight-line motion, avoiding any twisting motions.

QUALITY CONTROL

Quality control requirements must be performed in accordance with applicable local, state and/or federal regulations or accreditation requirements and your laboratory's standard Quality Control procedures. It is recommended that the user refer to pertinent CLSI guidance and CLIA regulations for appropriate Quality Control practices.

DO NOT USE culture vials past their expiration date.

DO NOT USE culture vials that exhibit any cracks or defects; discard the vial in the appropriate manner.

Quality Control Certificates are provided with each carton of media. Quality Control Certificates list test organisms, including ATCC® cultures specified in the CLSI Standard M22, *Quality Control for Commercially Prepared Microbiological Culture Media*. The range of time-to-detection in hours was ≤ 72 hours for each of the organisms listed on the Quality Control Certificate for this medium:

- | | |
|--|--|
| • <i>Neisseria meningitidis</i>
ATCC 13090 | • <i>Candida glabrata</i>
ATCC 66032 |
| • <i>Haemophilus influenzae</i>
ATCC 19418 | • <i>Staphylococcus aureus</i>
ATCC 25923 |
| • <i>Streptococcus pneumoniae</i> *
ATCC 6305 | • <i>Escherichia coli</i>
ATCC 25922 |
| • <i>Streptococcus pyogenes</i>
ATCC 19615 | • <i>Alcaligenes faecalis</i>
ATCC 8750 |
| • <i>Pseudomonas aeruginosa</i>
ATCC 27853 | |

*CLSI recommended strain

For information on Quality Control for the BD BACTEC fluorescent series instrument, refer to the appropriate BD BACTEC Fluorescent Series Instrument User's Manual.

RESULTS

A positive sample is determined by the BD BACTEC fluorescent series instrument and indicates the presumptive presence of viable microorganisms in the vial.

LIMITATIONS OF THE PROCEDURE

Contamination

Care must be taken to prevent contamination of the sample during collection and inoculation into the BD BACTEC vial. A contaminated sample will give a positive reading, but will not indicate a relevant clinical sample. Such a determination must be made by the user based on such factors as type of organism recovered, occurrence of the same organism in multiple cultures, patient history, etc.

Recovery of SPS Sensitive Organisms From Blood Samples

Because blood can neutralize the toxicity of SPS toward organisms sensitive to SPS, the presence of maximum volumes of blood (8–10 mL) can help to optimize recovery of these organisms. To enhance the growth of SPS sensitive organisms when less than 8 mL of blood is inoculated, additional whole human blood may be added.

Some fastidious organisms, such as certain *Haemophilus* species, require growth factors, such as NAD, or factor V, which are provided by the blood specimen. If the blood specimen volume is 3.0 mL or less, an appropriate supplement may be required for recovery of these organisms. BD BACTEC FOS™ Fastidious Organism Supplement or whole human blood may be used as nutritional supplements.

Nonviable Organisms

A Gram-stained smear from a culture medium may contain small numbers of nonviable organisms derived from media constituents, staining reagents, immersion oil, glass slides, and specimens used for inoculation. In addition, the patient specimen may contain organisms that will not grow in the culture medium or in media used for subculture. Such specimens should be subcultured to special media as appropriate.

Antimicrobial Activity

Neutralization of the antimicrobial activity by resins varies depending upon dosage level and timing of specimen collection. The use of supplementary additives should be considered in appropriate situations; as an example, the addition of penicillinase when β -lactam therapy is being employed.

Recovery of *Streptococcus pneumoniae*

In aerobic media, *S. pneumoniae* will typically be visually and instrument positive, but in some cases no organism will be seen on Gram stain or recovered on routine subculture. If an anaerobic vial was also inoculated, the organism can usually be recovered by performing an aerobic subculture of the anaerobic vial, since this organism has been reported to grow well under anaerobic conditions.¹¹

General Considerations

Optimum recovery of organisms will be achieved by adding maximum amounts of blood. Published clinical studies have shown that the use of lower blood volumes may adversely affect recovery and/or detection times of organisms.¹² Blood may contain antimicrobials or other inhibitors which may slow or prevent the growth of microorganisms. False negative readings may result when certain organisms are present which do not produce enough CO₂ to be detected by the system or if significant growth has occurred before placing the vial into the system. In analytical studies, this device recovered 17 of 18 *Leuconostoc* spp. tested. False positivity may occur when the white blood cell count is high. The default 5 day protocol was utilized for all analytical testing with this device, and protocol lengths of >5 days have not been evaluated.

Due to the nature of biological materials in media products and inherent organism variability, the user should be cognizant of potential variable results in the recovery of certain microorganisms.

EXPECTED VALUES AND SPECIFIC PERFORMANCE CHARACTERISTICS

Performance of the BD BACTEC Plus Aerobic/F medium in glass vials has been established by a number of external clinical studies.^{1-3,8,9} Seeded laboratory studies performed by BD have shown equivalent performance of the BD BACTEC Plus Aerobic/F medium in plastic vials compared to the BD BACTEC Plus Aerobic/F medium in glass vials.¹⁰ The yeasts *Candida albicans*, *C. glabrata*, and *Cryptococcus neoformans* were tested in the analytical testing of this device.

AVAILABILITY

Cat. No. Description

442023 BD BACTEC™ Plus Aerobic/F Medium

REFERENCES

1. Wallis, C. *et al.* 1980. Rapid isolation of bacteria from septicemic patients by use of an antimicrobial agent removal device. *J. Clin. Microbiol.* 11:462–464.
2. Applebaum, P.C. *et al.* 1983. Enhanced detection of bacteremia with a new BACTEC resin blood culture medium. *J. Clin. Microbiol.* 17:48–51.
3. Pohlman, J.K. *et al.* 1995. Controlled clinical comparison of Isolator and BACTEC 9240 Aerobic/F resin bottle for detection of bloodstream infections. *J. Clin. Microbiol.* 33:2525–2529.
4. Clinical and Laboratory Standards Institute. 2005. Approved Guideline M29-A3. Protection of laboratory workers from occupationally acquired infections, 3rd ed. CLSI, Wayne, Pa.
5. Garner, J.S. 1996. Hospital Infection Control Practices Advisory Committee, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Guideline for isolation precautions in hospitals. *Infect. Control Hospital Epidemiol.* 17: 53–80.
6. U.S. Department of Health and Human Services. 2007. Biosafety in microbiological and biomedical laboratories, HHS Publication (CDC), 5th ed. U.S. Government Printing Office, Washington, D.C.
7. Directive 2000/54/EC of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work (seventh individual directive within the meaning of Article 16(1) of Directive 89/391/EEC). Official Journal L262, 17/10/2000, p. 0021–0045.
8. Smith, J.A. *et al.* 1995. Comparison of BACTEC 9240 and BacT/Alert blood culture systems in an adult hospital. *J. Clin. Microbiol.* 33:1905–1908.
9. Flayhart, D. *et al.* 2007. Comparison of BACTEC Plus blood culture media to BacT/Alert FA blood culture media for detection of bacterial pathogens in samples containing therapeutic levels of antibiotics. *J. Clin. Microbiol.* 45:816–821.
10. Data available from BD Life Sciences.
11. Howden, R.J. 1976. Use of anaerobic culture for the improved isolation of *Streptococcus pneumoniae*. *J. Clin. Pathol.* 29:50–53.
12. Ilstrup, Duane M. and John A. Washington. 1983. The importance of volume of blood cultured in the detection of bacteremia and fungemia. *Diagn. Microbiol. Infect Dis.* 1:107–110.

Technical Information: In the United States contact BD Technical Service and Support at 1.800.638.8663 or bd.com.

Change History

Revision	Date	Change Summary
(05)	2019-09	Converted printed instructions for use to electronic format and added access information to obtain the document from BD.com/e-labeling . In Warnings and Precautions section, added recommendation to perform molecular testings on positive blood cultures according to standard-of-care practices and manufacturer's instructions for use.

US Customers only: For symbol glossary, refer to bd.com/symbols-glossary

	Manufacturer / Производител / Výrobce / Fabrikant / Hersteller / Κατασκευαστής / Fabricante / Tootja / Fabricant / Proizvođač / Gyártó / Fabbicante / Аткарушы / 제조업체 / Gamintojas / Ražotājs / Tilvirker / Producent / Producător / Производител / Výrobca / Proizvođač / Tillverkare / Üretici / Виробник / 生产厂商
	Use by / Използвайте до / Spotføjeligt do / Brug før / Verwendbar bis / Χρήση έως / Usar antes de / Kasutada enne / Date de péremption / 사용 기한 / Upotrijebiti do / Felhasználhatóság dátuma / Usare entro / Дейін пайдалануға / Naudokite iki / Izlietot līdz / Houdbaar tot / Brukes for / Stosować do / Prazo de validade / A se utiliza până la / Използovať до / Použite do / Upotrebiti do / Använd före / Son kulanma tarihi / Використати до / 使用截止日期 YYYY-MM-DD / YYYY-MM (MM = end of month) ГГГГ-ММ-ДД / ГГГГ-ММ (ММ = края на месеца) RRRR-MM-DD / RRRR-MM (MM = konec měsíce) AAAA-MM-DD / AAAA-MM (MM = slutning af måned) JJJJ-MM-TT / JJJJ-MM (MM = Monatsende) EEEE-MM-HH / EEEE-MM (MM = τέλος του μήνα) AAAA-MM-DD / AAAA-MM (MM = fin del mes) AAAA-KK-PP / AAAA-KK (KK = kuu lõpp) AAAA-MM-JJ / AAAA-MM (MM = fin du mois) GGGG-MM-DD / GGGG-MM (MM = kraj mjeseca) EEEE-HH-NN / EEEE-HH (HH = hónap utolsó napja) AAAA-MM-GG / AAAA-MM (MM = fine mese) ЖОЖОЖ-АА-КК / ЖОЖОЖ-АА / (АА = айдың соңы) YYYY-MM-DD/YYYY-MM (MM = 월말) MMMM-MM-DD / MMMM-MM (MM = hónesio pabaiga) GGGG-MM-DD/GGGG-MM (MM = mėneša beigas) JJJJ-MM-DD / JJJJ-MM (MM = einde maand) AAAA-MM-DD / AAAA-MM (MM = slutten av månaden) RRRR-MM-DD / RRRR-MM (MM = koniec miesiąca) AAAA-MM-DD / AAAA-MM (MM = fim do mês) AAAA-LL-ZZ / AAAA-LL (LL = sfârșitul lunii) ГГГГ-ММ-ДД / ГГГГ-ММ (ММ = конец месяца) RRRR-MM-DD / RRRR-MM (MM = koniec miesiąca) GGGG-MM-DD / GGGG-MM (MM = kraj meseca) AAAA-MM-DD / AAAA-MM (MM = slutet av månaden) YYYY-AA-GG / YYYY-AA (AA = ayın sonu) PPPP-MM-DD / PPPP-MM (MM = кінець місяця) YYYY-MM-DD / YYYY-MM (MM = 月末)
REF	Catalog number / Каталоген номер / Katalógové číslo / Katalognummer / Αριθμός καταλόγου / Número de catálogo / Katalooginumber / Numéro catalogue / Kataloški broj / Katalógusszám / Numero di catalogo / Каталог номер / 카탈로그 번호 / Katalogo / numeris / Kataloga numurs / Catalogus nummer / Numer katalogowy / Număr de catalog / Номер по каталогу / Katalógové číslo / Kataloški broj / Katalog numarası / Номер за каталогом / 目录号
EC REP	Authorized Representative in the European Community / Оторизирани представител в Европейската общност / Autorizovaný zástupce pro Evropském společenství / Autoriseret representant i De Europæiske Fællesskaber / Autorisierter Vertreter in der Europäischen Gemeinschaft / Εξουσιοδοτημένος αντιπρόσωπος στην Ευρωπαϊκή Κοινότητα / Representante autorizado en la Comunidad Europea / Voilatud esindaja Euroopa Nõukogus / Représentant autorisé pour la Communauté européenne / Autorizuirani predstavnik u Evropskoj uniji / Meghatalmazott képviselő az Európai Közösségekben / Rappresentante autorizzato nella Comunità Europea / Европа қауымдастығындағы уәкілетті өкіл / 유럽 공동체의 위임 대표 / Įgaliotasis atstovas Europos Bendrijoje / Pilnvarotais pārstāvis Eiropas Kopienā / Bevoegde vertegenwoordiger in de Europese Gemeenschap / Autoriseret representant i EU / Autoryzowane przedstawicielstwo we Wspólnocie Europejskiej / Representante autorizado na Comunidade Europeia / Reprezentantul autorizat pentru Comunitatea Europeană / Уполномоченный представитель в Европейском сообществе / Autorizovaný zástupca v Európskom spoločenstve / Autorizovano predstavništvo u Evropskoj uniji / Auktoriserad representant i Europeiska gemenskapen / Avrupa Topluluğu Yetkili Temsilcisi / Уповноважений представник у країнах ЄС / 欧洲共同体授权代表
IVD	In Vitro Diagnostic Medical Device / Медицински уред за диагностика ин витро / Lékařské zařízení určené pro diagnostiku in vitro / In vitro diagnostisk medicinsk anordning / Medizinisches In-vitro-Diagnostikum / In vitro διαγνωστική ιατρική συσκευή / Dispositivo médico para diagnóstico in vitro / In vitro diagnostika meditsiiniparatuur / Dispositif médical de diagnostic in vitro / Medicinska pomagala za In Vitro Dijagnostiku / In vitro diagnosztikai orvosi eszköz / Dispositivo medical per diagnostica in vitro / Жасанды жағдайда жүргізетін медициналық диагностика аспабы / In Vitro Diagnostic 의료 기기 / In vitro diagnostikos prietais / Medicinas ierīces, ko lieto in vitro diagnostikā / Medisch hulpmiddel voor in-vitro diagnostiek / In vitro diagnostisk medisinsk utstyr / Urządzenie medyczne do diagnostyki in vitro / Dispositivo médico para diagnóstico in vitro / Dispozitiv medical pentru diagnostic in vitro / Медицинский прибор для диагностики in vitro / Medicinska pomůcka na diagnostiku in vitro / Medicinski uređaj za in vitro dijagnostiku / Medicinteknisk produkt för in vitro-diagnostik / In Vitro Diagnostik Tibbi Cihaz / Медицинский прибор для диагностики in vitro / 体外诊断医疗设备
	Temperature limitation / Температурни ограничения / Teplotní omezení / Temperaturbegrænsning / Temperaturbegrenzung / Περιορισμοί θερμοκρασίας / Limitación de temperatura / Temperaturi piirang / Limites de température / Dozvoljena temperatura / Hőmérsékleti határ / Limiti di temperatura / Температураны шектеу / 온도 제한 / Laikymo temperatūra / Temperatūras ierobežojumi / Temperaturlimit / Temperaturbegrænsning / Ograniczenie temperatury / Limites de temperatura / Limite de temperatură / Ограничение температуры / Ohraničenje teploty / Ograničenje temperature / Temperaturgräns / Sıcaklık sınırlaması / Обмеження температури / 温度限制
LOT	Batch Code (Lot) / Код на партидата / Kód (číslo) šarže / Batch-kode (lot) / Batch-Code (Charge) / Κωδικός παρτίδας (παρτίδα) / Código de lote (lote) / Partii kood / Numéro de lot / Lot (kod) / Tétel száma (Lot) / Codice batch (lotto) / Топтама коды / 배치 코드(코트) / Partijos numeris (LOT) / Partijas kods (laidiens) / Lot number / Batch-kode (parti) / Kod partii (seria) / Código do lote / Cod de serie (Lot) / Код партии (лот) / Kód série (šarža) / Kod serije / Partinummer (Lot) / Parti Kodu (Lot) / Код партії / 批号 (亚批)
	Contains sufficient for <n> tests / Съдържанието е достатъчно за <n> теста / Dostatečné množství pro <n> testů / Indeholder tilstrækkeligt til <n> tests / Ausreichend für <n> Tests / Περιέχει επαρκή ποσότητα για <n> εξετάσεις / Contenido suficiente para <n> pruebas / Küllaldane <n> testide jaoks / Contenu suffisant pour <n> tests / Sadržaj za <n> testova / <n> teszthez elegendő / Contenido suficiente per <n> test / <n> тесттері үшін жеткінікті / <n> 테스트가 충분히 포함됨 / Pakankamas kiekis atlikti <n> testų / Satur pietiekami <n> pārbaudēm / Inhoud voldoende voor "n" testen / Innholder tilstrekkelig til <n> tester / Zawiera ilość wystarczającą do <n> testów / Conteúdo suficiente para <n> testes / Continut suficient pentru <n> teste / Достаточно для <n> тестов(a) / Obsah vystačí na <n> testov / Sadržaj dovoljan za <n> testova / Innehåller tillräckligt för <n> analyser / <n> test için yeterli malmzeme içerir / Вистачить для аналізів: <n> / 足够进行 <n> 次检测
	Consult Instructions for Use / Направете справка в инструкциите за употреба / Prostudujte pokyny k použití / Se brugsanvisningen / Gebrauchsanweisung beachten / Συμβουλευτείτε τις οδηγίες χρήσης / Consultar las instrucciones de uso / Lugeda kasutusjuhendit / Consulter la notice d'emploi / Koristi upute za upotrebu / Olvassa el a használati utasítást / Consultare le istruzioni per l'uso / Пайдалану нұсқаулығымен танысып алыңыз / 사용 지침 참조 / Skaityti naudojimo instrukcijas / Skatīt lietošanas pamācību / Raadpleeg de gebruiksaanwijzing / Se i bruksanvisningen / Zobacz instrukcja użytkowania / Consultar as instruções de utilização / Consultați instrucțiunile de utilizare / См. руководство по эксплуатации / Pozri Pokyny na používanie / Pogledajte uputstvo za upotrebu / Se bruksanvisningen / Kullanım Talimatları'na başvurun / Див. інструкції з використання / 请参阅使用说明
	Do not reuse / Не използвайте отново / Nepoužívejte opakovaně / Ikke til genbrug / Nicht wiederverwenden / Μην επαναχρησιμοποιείτε / No reutilizar / Mitte kasutada korduvalt / Ne pas réutiliser / Ne koristiti ponovo / Egyyszer használatos / Non riutilizzare / Пайдаланбаңыз / 재사용 금지 / Tik vienkartiniam naudojimui / Nelietot atkārtoti / Niet opnieuw gebruiken / Kun til engangsbruk / Nie stosować powtórnie / Não reutilize / Nu refolositi / Не использовать повторно / Nepoužívejte opakovane / Ne upotrebljavajte ponovo / Får ej återanvändas / Tekrar kulanmayin / Не використовувати повторно / 请勿重复使用
SN	Serial number / Серийен номер / Sériové číslo / Serienummer / Serienummer / Σειριακός αριθμός / N° de serie / Seerianumber / Numéro de série / Serijski broj / Sorozatszám / Numero di serie / Топтамалық нөмірі / 일련 번호 / Serijos numeris / Sérijas numurs / Serie nummer / Numer seryjny / Numéro de série / Număr de serie / Серийный номер / Seri numarası / Номер серії / 序列号

	For IVD Performance evaluation only / Само за оценка качества работы на работа на IVD / Pouze pro vyhodnocení výkonu IVD / Kun til evaluering af IVD ydelse / Nur für IVD-Leistungsbewertungszwecke / Μόνο για αξιολόγηση απόδοσης IVD / Sólo para la evaluación del rendimiento en diagnóstico in vitro / Ainult IVD seadme hindamiseks / Réserve à l'évaluation des performances IVD / Samo u znanstvene svrhe za In Vitro Dijagnostiku / Kizárolag in vitro diagnosztikához / Solo per valutazione delle prestazioni IVD / Жасанды жағдайда «пробирка ішінде» диагностикада тек жұмысты бағалау үшін / IVD 성능 평가에 대해서만 사용 / Tik IVD prietaisų veikimo charakteristikoms tikrinti / Vienīgi IVD darbības novērtēšanai / Uitsluitend voor doeltreffendheidsonderzoek / Kun for evaluering av IVD-ydelse / Tiklo do oceny wydajności IVD / Uso exclusivo para avaliação de IVD / Numai pentru evaluarea performanței IVD / Только для оценки качества диагностики in vitro / Určené iba na diagnostiku in vitro / Samo za procenu učinka u in vitro dijagnostici / Endast för utvärdering av diagnostisk användning in vitro / Yalnızca IVD Performans değerlendirmesi için / Тільки для оцінювання якості діагностики in vitro / 仅限 IVD 性能评估
	For US: "For Investigational Use Only"
	Lower limit of temperature / Долен лимит на температурата / Dolní hranice teploty / Nedre temperaturgrænse / Temperaturuntergrenze / Κατώτερο όριο θερμοκρασίας / Limite inferior de temperatura / Alumine temperatuuripiir / Limite inférieure de température / Najniža dozvoljena temperatura / Alsó hőmérsékleti határ / Limite inferiore di temperatura / Температураның төменгі рұқсат шегі / 하한 온도 / Žemiausia laikymo temperatūra / Temperatūros žemākā robeža / Laagste temperatuurlimiet / Nedre temperaturgrænse / Dolna granica temperatury / Limite minimo de temperatura / Limită minimă de temperatură / Нижний предел температуры / Spodná hranica teploty / Donja granica temperature / Nedre temperaturgräns / Sıcaklık alt sınırı / Мінімальна температура / 温度下限
CONTROL	Control / Контролно / Kontrola / Kontrol / Kontrolle / Μάρτυρας / Kontroll / Contrôle / Controllo / Бақылау / 컨트롤 / Kontrolé / Kontrolle / Controle / Controllo / Контроль / kontroll / 对照
CONTROL +	Positive control / Положителен контрол / Pozitivní kontrola / Positiv kontrol / Positive Kontrolle / Θετικός μάρτυρας / Control positivo / Positiivne kontroll / Contrôle positif / Pozitivna kontrola / Pozitív kontroll / Controllo positivo / Оң бақылау / 양성 컨트롤 / Teigiama kontrolė / Pozitívá kontrolé / Positieve controle / Kontrola dodatnia / Controllo positivo / Control pozitiv / Положительный контроль / Pozitif kontrol / Позитивний контроль / 阳性对照试剂
CONTROL -	Negative control / Отрицателен контрол / Negativní kontrola / Negativ kontrol / Negative Kontrolle / Αρνητικός μάρτυρας / Control negativo / Negatiivne kontroll / Contrôle négatif / Negativna kontrola / Negatív kontroll / Controllo negativo / Негативті бақылау / 음성 컨트롤 / Neigiama kontrolė / Negatívá kontrolé / Negatieve controle / Kontrola ujemna / Controllo negativo / Control negativ / Отрицательный контроль / Negatif kontrol / Негативний контроль / 阴性对照试剂
STERILE EO	Method of sterilization: ethylene oxide / Метод на стерилизация: етиленов оксид / Způsob sterilizace: etylenoxid / Steriliseringmetode: ethylenoxid / Sterilisationsmethode: Ethylenoxid / Μέθοδος αποστείρωσης: αιθυλενοξείδιο / Método de esterilización: óxido de etileno / Steriliseringmetode: etüleenoksiid / Méthode de stérilisation : oxyde d'éthylène / Metoda sterilizacije: etilen oksid / Sterilizálás módszere: etilén-oxid / Metoda di sterilizzazione: ossido di etilene / Sterilizacija edici – етилен тогызы / 소독 방법: 에틸렌옥사이드 / Sterilizavimo būdas: etileno oksidas / Sterilizēšanas metode: etilēnoksisds / Gesteriliseerd met behulp van ethyleenoxide / Steriliseringmetode: etylenoksid / Metoda sterylizacji: tlenek etylu / Método de esterilização: óxido de etileno / Metodă de sterilizare: oxid de etilenă / Метод стерилизации: этиленоксид / Metodá sterilizácie: etylenoxid / Metoda sterilizacije: etilen oksid / Steriliseringmetod: etenoxid / Sterilizasyon yöntemi: etilen oksit / Метод стерилизації: этиленоксидом / 灭菌方法: 环氧乙烷
STERILE R	Method of sterilization: irradiation / Метод на стерилизация: ирадиация / Způsob sterilizace: záření / Steriliseringmetode: bestråling / Sterilisationsmethode: Bestrahlung / Μέθοδος αποστείρωσης: ακτινοβολία / Método de esterilización: irradiación / Steriliseringmetode: kiirgus / Méthode de stérilisation : irradiation / Metoda sterilizacije: zračenje / Sterilizálás módszere: besugárzás / Metoda di sterilizzazione: irradiazione / Sterilizacija edici – сәуле тисы / 소독 방법: 방사 / Sterilizavimo būdas: radiacija / Sterilizēšanas metode: apstarošana / Gesteriliseerd met behulp van bestraling / Steriliseringmetode: bestråling / Metoda sterylizacji: napromienianie / Método de esterilização: irradiação / Metodă de sterilizare: iradiere / Метод стерилизации: облучение / Metodá sterilizácie: ožiarenie / Metoda sterilizacije: ozračevanje / Steriliseringmetod: strålning / Sterilizasyon yöntemi: ırradyasyon / Метод стерилизації: опроміннення / 灭菌方法: 辐射
	Biological Risks / Биологични рискове / Biologická rizika / Biologisk fare / Biogefährdung / Βιολογικοί κίνδυνοι / Riesgos biológicos / Biologilised riskid / Risques biologiques / Biološki rizik / Biológiai veszélyes / Rischio biologico / Биологическi тәуекелдер / 생물학적 위험 / Biologinis pavojus / Biologiskie riski / Biologisch risico / Biologisk risiko / Zagrożenia biologiczne / Perigo biológico / Riscuri biologice / Биологическая опасность / Biologické riziko / Biološki rizici / Biologisk risk / Biyolojik Riskler / Біологічна небезпека / 生物学风险
	Caution, consult accompanying documents / Внимание, направете справка в придружаващите документи / Pozor! Pristudujte si příloženou dokumentaci! / Forsigtig, se ledsagende dokumenter / Achtung, Begleitdokumente beachten / Προσοχή, συμβουλευτείτε τα συνοδευτικά έγγραφα / Precaución, consultar la documentación adjunta / Ettevaatust! Lugeka kaasnevat dokumentatsiooni! / Attention, consulter les documents joints / Urozozenje, koristi prateću dokumentaciju / Figyelem! Olvassa el a mellékelt tájékoztatót / Attenzione: consultare la documentazione allegata / Абайлаңыз, тиісті құжаттармен танысыңыз / 주의, 동봉된 설명서 참조 / Dmesio, žiūrėkite priedamus dokumentus / Piesardziba, skaiti pavaddokumentus / Voorzichtig, raadpleeg bijgevoegde documenten / Forsiktig, se vedlagt dokumentasjon / Należy zapoznać się z dołączonymi dokumentami / Cuidado, consulte a documentação fornecida / Atenție, consultați documentele însoțitoare / Внимание: см. прилагаемую документацию / Vystraha, pozri sprievodné dokumenty / Pažnja! Pogledajte priložena dokumenta / Obs! Se medföljande dokumentation / Dikkat, birlikte verilen belgelere başvurun / Увага: див. супутню документацію / 小心, 请参阅附带文档。
	Upper limit of temperature / Горен лимит на температурата / Horní hranice teploty / Øvre temperaturgrænse / Temperaturobergrenze / Ανώτερο όριο θερμοκρασίας / Limite superior de temperatura / Ülemine temperatuuripiir / Limite supérieure de température / Gornja dozvoljena temperatura / Felső hőmérsékleti határ / Limite superiore di temperatura / Температураның рұқсат етілген жоғарғы шегі / 상한 온도 / Aukščiausia laikymo temperatūra / Temperatūros aukštesnė riba / Hoogste temperatuurlimiet / Øvre temperaturgrænse / Gorna granica temperatury / Limite máximo de temperatura / Limită maximă de temperatură / Верхний предел температуры / Horná hranica teploty / Gornja granica temperature / Øvre temperaturgräns / Sıcaklık üst sınırı / Мінімальна температура / 温度上限
	Keep dry / Пазете сухо / Skladujte v suchém prostředí / Opbevarer tørt / Trocklagern / Φυλάξτε το στεγνό / Mantener seco / Hoida kuivas / Conserver au sec / Držati na suhom / Száraz helyen tartandó / Tenere all'asciutto / Құрғақ күйінде ұста / 건조 상태 유지 / Laikykite sausai / Uzglabāt sausu / Droog houden / Holdes tørt / Przechowywać w stanie suchym / Manter seco / A se feri de umezeală / Не допускать попадания влаги / Uchovávať v suchu / Držite na suvom mestu / Förvaras tørt / Kuru bir şekilde muhafaza edin / Бергетти від вологості / 请保持干燥
	Collection time / Време на събиране / Čas odběru / Orsamlingstidspunkt / Entnahmeuhrzeit / Ώρα συλλογής / Hora de recogida / Kogumisaeg / Heure de prélèvement / Sati prikupljanja / Mintavétel időpontja / Ora di raccolta / Жинау уақыты / 수집 시간 / Paėmimo laikas / Savākšanas laiks / Verzameltijd / Tid förövtagning / Godzina pobrania / Hora de colheita / Ora colectării / Время сбора / Doba odboru / Vreme prikupljanja / Uppsamlingstid / Toplama zamanı / Час забору / 采集时间
	Peel / Обелете / Otevfete zde / Abn / Abziehen / Αποκολλήστε / Desprender / Koorida / Décoller / Otvoriti skin / Húzza le / Staccare / Ўстиғи қабатын алып таста / 벗기 / Plęsti čia / Atfimt / Schillen / Trek av / Oderwać / Destacar / Se dezlipşte / Отклеить / Odtrhnite / Oljuštiti / Dra isär / Ayırma / Відкрити / 撕下
	Perforation / Перфорация / Perforace / Perforering / Διάτρηση / Perforación / Perforatsioon / Perforacija / Perforálás / Perforazione / Тесик тесу / 찔취신 / Perforacija / Perforácia / Perforatie / Perforacja / Perfuração / Perforare / Перфорация / Perforácia / Perforasyon / Перфорация / 穿孔
	Do not use if package damaged / Не използвайте, ако опаковката е повредена / Ne používejte, je-li obal poškozený / Må ikke anvendes hvis emballagen er beskadiget / Inhal beschädigter Packungnicht verwenden / Μη χρησιμοποιείτε εάν η συσκευασία έχει υποστεί ζημιά. / No usar si el paquete está dañado / Mitte kasutada, kui pakend on kahjustatud / Ne pas l'utiliser si l'emballage est endommagé / Ne koristiti ako je oštećeno pakiranje / Ne használnia, ha a csomagolás sérült / Non usare se la confezione è danneggiata / Егер пакет бұзылған болса, пайдаланба / 패키지가 손상된 경우 사용 금지 / Jei pakuotė pažeista, nenaudoti / Nelietot, ja iepakojums bojāts / Niet gebruiken indien de verpakking beschadigd is / Må ikke brukes hvis pakke er skadet / Nie używać, jeśli opakowanie jest uszkodzone / Não usar se a embalagem estiver danificada / A nu se folosi dacă pachetul este deteriorat / Не использовать при повреждении упаковки / Ne použivajte, ak je obal poškodený / Ne koristite ako je pakovanje oštećeno / Använd ej om förpackningen är skadad / Ambalaj hasar görmüşse kullanmayın / Не використовувати за пошкодженої упаковки / 如果包装破损, 请勿使用
	Keep away from heat / Пазете от топлина / Nevystavujte přílišnému teplu / Må ikke udsættes for varme / Vor Wärme schützen / Κρατήστε το μακριά από τη θερμότητα / Mantener alejado de fuentes de calor / Hoida eemal valgusest / Protéger de la chaleur / Držati dalje od izvora topline / Övja a melegtől / Tenere lontano dal calore / Сапқын жерде сақта / 열을 피해야 함 / Laikyti atokiau nuo šilumos šaltinių / Sargāt no karstuma / Beschermen tegen warmte / Må ikke utsettes for varme / Przechowywać z dala od źródeł ciepła / Manter ao abrigo do calor / A se feri de căldură / Не награвать / Uchovávať mimo zdroja tepla / Držite dalje od toplote / Får ej utsättas för värme / Isidan uzak tutun / Бергетти від дії тепла / 请远离热源
	Cut / Срежете / Odstřihněte / Klip / Schneiden / Κόψτε / Cortar / Lõigata / Découper / Reži / Vágja ki / Tagliare / Keciңiz / 잘라내기 / Kirpti / Nogriez / Knippen / Kutt / Odciąć / Cortar / Decupaji / Отрезать / Odstřihnite / Iseći / Klipp / Kesme / Pozpizati / 剪下



Collection date / Дата на събиране / Datum odběru / Opsamlingsdato / Entnahmedatum / Ημερομηνία συλλογής / Fecha de recogida / Kogumiskuurpäev / Date de prélèvement / Dani prikupljanja / Mintavétel dátuma / Data di raccolta / Жинаған тізбекүні / 수집 날짜 / Paëmimo data / Savākšanas datums / Verzameldatum / Dato prøvetaking / Data pobrania / Data de colheita / Data colectării / Дата сбора / Datum odberu / Datum prikupljanja / Uppsamlingsdatum / Toplama tarihi / Дата забору / 采集日期



μL/test / μL/тест / μL/Test / μL/εξέταση / μL/prueba / μL/teszt / μL/테스트 / мкл/тест / μL/tyrimas / μL/pårbaude / μL/teste / мкл/анализ / μL/检测



Keep away from light / Παзете от светлина / Nevystavujte světlu / Må ikke udsættes for lys / Vor Licht schützen / Κρατήστε το μακριά από το φως / Mantener alejado de la luz / Hoida eemal valgusest / Conserver à l'abri de la lumière / Držati dalje od svetla / Fény nem érheti / Tenere al riparo dalla luce / Қараңғыланған жерде ұста / 빛을 피해야 함 / Laikyti atokiau nuo šilumos šaltinių / Sargāt no gaismas / Niet blootstellen aan zonlicht / Må ikke utsettes for lys / Przechowywać z dala od źródła światła / Manter ao abrigo da luz / Feriți de lumină / Хранить в темноте / Uchovávať mimo dosahu svetla / Držite dalje od svetlosti / Får ej utsättas för ljus / Işıktan uzak tutun / Беретти від дії світла / 请远离光线



Hydrogen gas generated / Образуван е водород газ / Možnost úniku plynného vodíku / Frembringer hydrogengas / Wasserstoffgas erzeugt / Δημιουργία αερίου υδρογόνου / Producción de gas de hidrógeno / Vesinikgaasi tekitatud / Produit de l'hydrogène gazeux / Sadrží hydrogen vodik / Hidrogén gázt fejleszt / Produzione di gas idrogeno / Газтөктес сутері пайда болды / 수소 가스 생성됨 / Išskiria vandenilio dujas / Rodas ūdenradis / Waterstofgas gegenereerd / Hydrogengass generert / Powoduje powstawanie wodoru / Produção de gás de hidrogénio / Generare gaz de hidrogen / Выделение водорода / Vyrobené použitím vodíka / Osloбаda se vodonik / Genererad vätgas / Açığa çıkan hidrojen gazı / Реакція з виділенням водню / 会产生氢气



Patient ID number / ИД номер на пациента / ID pacienta / Patients ID-nummer / Patienten-ID / Αριθμός αναγνώρισης ασθενούς / Número de ID del paciente / Patsiendi ID / No d'identification du patient / Identifikacijski broj pacijenta / Beteg azonosító száma / Numero ID paziente / Пациенттің идентификациялық нөмірі / 환자 ID 번호 / Paciento identifikavimo numeris / Pacienta ID numurs / Identificationnummer van de patiënt / Pasientens ID-nummer / Numer ID pacjenta / Número da ID do doente / Număr ID pacient / Идентификационный номер пациента / Identifikačné číslo pacienta / ID broj pacijenta / Patientnummer / Hasta kimlik numarası / Идентификатор пациента / 患者标识号



Fragile, Handle with Care / Чупливо, Работете с необходимото внимание. / Křehké, Při manipulaci postupujte opatrně. / Forsigtig, kan gå i stykker. / Zerbrechlich, vorsichtig handhaben. / Εύθραυστο. Χειριστείτε το με προσοχή. / Frágil. Manipular con cuidado. / Öm, käsitsege ettevaatlikult. / Fragile. Manipuler avec précaution. / Lomljivo, rukujte pažljivo. / Törékeny! Óvatosan kezelendő. / Fragile, maneggiare con cura. / Сынғыш, абайлап пайдаланыңыз. / 조심 깨지기 쉬운 처리 / Trapu, elkitės atsargiai. / Trausls; rikoties uzmanīgi / Breekbaar, voorzichtig behandelen. / Ømtål, håndter forsigtig. / Krucha zawartość, przenosić ostrożnie. / Frágil, Manuseie com Cuidado. / Frágil, manipulați cu atenție. / Хрупкое! Обращаться с осторожностью. / Křehké, vyžaduje sa opatrná manipulácia. / Lomljivo - rukujte pažljivo. / Bräckligt. Hantera försiktigt. / Kolay Kırılır, Dikkatli Taşıyın. / Теңдітна, звертатися з обережністю / 易碎, 小心轻放

R_x Only

This only applies to US: "Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner." / S'applique uniquement aux États-Unis: "Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner." / Vale solo per gli Stati Uniti: "Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner." / Gilt nur für die USA: "Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner." / Sólo se aplica a los EE.UU.: "Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner."



bd.com/e-labeling

KEY-CODE: 8089074

Europe, CH, GB, NO:		+800 135 79 135
International:		+31 20 794 7071
AR	+800 135 79 135	LT 8800 30728
AU	+800 135 79 135	MT +31 20 796 5693
BR	0800 591 1055	NZ +800 135 79 135
CA	+1 855 805 8539	RO 0800 895 084
CO	+800 135 79 135	RU +800 135 79 135
EE	0800 0100567	SG 800 101 3366
GR	00800 161 22015 7799	SK 0800 606 287
HR	0800 804 804	TR 00800 142 064 866
IL	+800 135 79 135	US +1 855 236 0910
IS	800 8996	UY +800 135 79 135
LI	+31 20 796 5692	VN 122 80297



Becton, Dickinson and Company
7 Loveton Circle
Sparks, MD 21152 USA



Benex Limited
Pottery Road, Dun Laoghaire
Co. Dublin, Ireland

ATCC® is a trademark of American Type Culture Collection.

BD, the BD Logo, BACTEC, FOS, Luer-Lok, Safety-Lok, and Vacutainer® are trademarks of Becton, Dickinson and Company or its affiliates. © 2019 BD. All rights reserved.