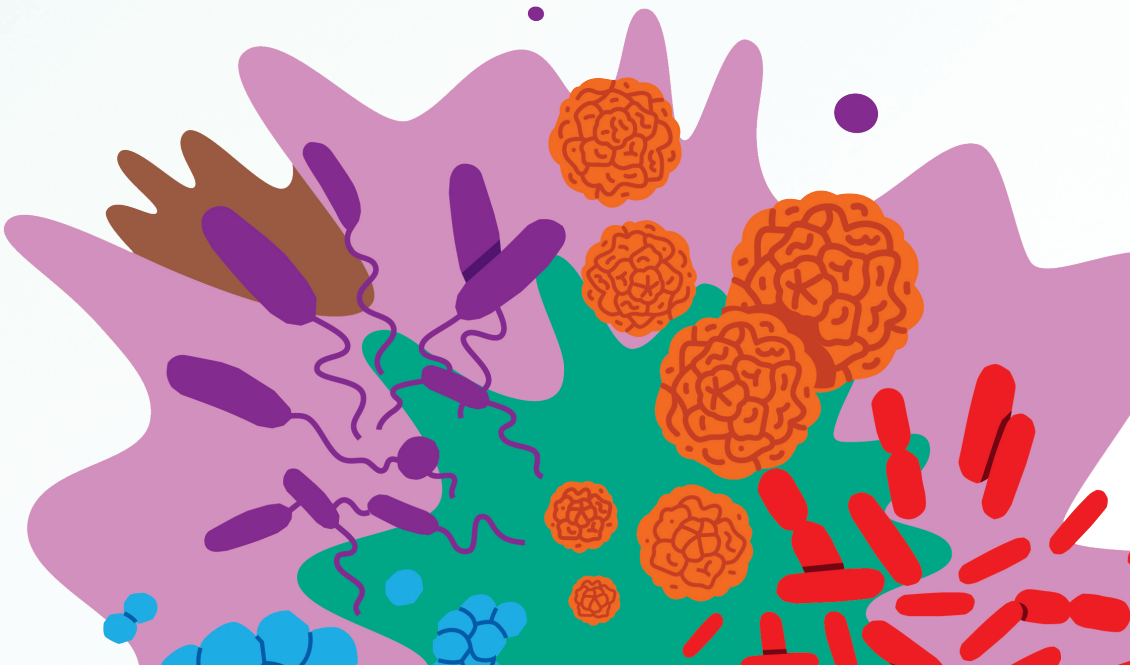
cobas®

Roche

cobas® eplex blood culture identification panels

In the race against time for sepsis, get rapid results using the most comprehensive panels for bloodstream infections



Physicians today are faced with significant challenges in the diagnosis of sepsis. It can take days to identify the causative organisms and treatment options for bloodstream infections (BSI), which can lead to delays in effective antimicrobial therapy, increased hospital costs and higher patient mortality rates.

Rapid identification is critical

Traditional methods can take days to identify the causative agents of sepsis.

For every hour effective antibiotics are delayed, the sepsis mortality rate increases up to

8%[1]

20%-30%

of patients receive ineffective initial antibiotic therapy.[2]

Rapid identification and reporting

True sample-to-answer workflow:
cobas® eplex system is so easy to use that it can be run on any shift, so critical patient samples never have to wait until morning.

With automated results reporting via LIS and remote alerts, there is **no delay** in patient reporting.

cobas eplex BCID panels deliver results in

~90 minutes[6,7]

beating conventional culture-based tests by as much as **2 days**.[8]

Coverage of

>95%[9]

of the organisms causing BSI, so nearly every patient will get a rapid result.

Rapidly rule-out blood culture contamination

As much as 15 to 30% of positive blood cultures may be due to contaminants which can result in continuation of unnecessary antibiotics.[3]

The **cobas eplex** BCID panels are designed to allow you to more rapidly differentiate a contaminant from a true infection, potentially enabling rapid de-escalation and discharge of patients with a bloodstream infection 2-3 days earlier than conventional methods.[4]

Common contaminants included on the **cobas eplex** BCID-GP panel but not on most competitors' panels[5] include: *Bacillus subtilis* group, *Corynebacterium, Cutibacterium acnes, Lactobacillus* and *Micrococcus.*

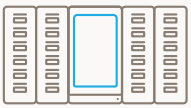
Simple, easy-to-use workflow

Less than 1 minute

of hands-on time

Enables on-demand testing on all shifts

Pipette 50 µL of sample into cartridge



Scan and load cartridge

The **cobas eplex** BCID panels enable physicians to rapidly identify more clinically relevant bloodstream infections and their resistance genes while quickly ruling out blood culture contamination, which can result in earlier treatment decisions. Rapid molecular diagnosis of BSI has been shown to improve patient outcomes, antimicrobial stewardship and reduce hospital costs.

The value of resistance genes

Resistance genes can detect the potential for resistance even in cases where antibiotics appear active by antimicrobial susceptibility testing (AST) but may not be effective clinically, so even if a gene hasn't been expressed, the resistance genotype won't be missed.[10]

Patient-centered care

Rapid ID of the causative agents in BSI with multiplex molecular diagnostics has been shown to decrease time to targeted therapy by ~25 hours[12] and length of hospital stay by 2.5 days.[13]

Deliver important information to aid in

rapid infection control[11]

Speed & reliability

of resistant markers, combined with the broad coverage of AST, provide optimal patient care.

cobas eplex BCID panels can aid in earlier de-escalation of antibiotics

which can significantly help clinicians and healthcare personnel reduce adverse effects, like acute kidney injury (AKI) and *C. difficile* infection risk.[14-16]

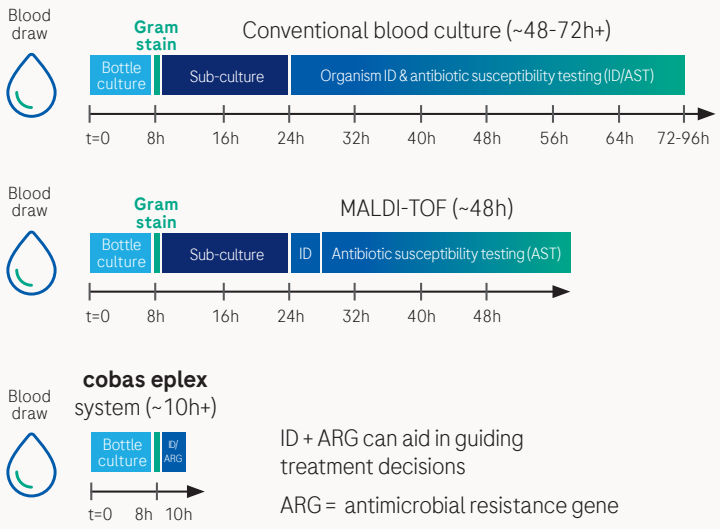
Detect more

BSI while quickly ruling out blood culture contaminants with cobas eplex BCID panels

Designed to enable prompt treatment decisions.

Enabling timely treatment decisions for more patients

cobas eplex BCID panels include the broadest[5,7] coverage of bacterial and fungal organisms and their resistance genes available from a sample-to-answer multiplex diagnostics platform.



cobas eplex BCID panels reduce time to actionable result for BSI by as much as several days compared to conventional methodologies.[6,7]

cobas eplex BCID panels

Gram-positive panel	**Gram-negative panel**	**Fungal pathogen panel**
Bacillus cereus group	*Acinetobacter baumannii*	*Candida albicans*
Bacillus subtilis group	*Bacteroides fragilis*	*Candida auris*
Corynebacterium	*Citrobacter*	*Candida dubliniensis*
Cutibacterium acnes	*Cronobacter sakazakii*	*Candida famata*
Enterococcus	*Enterobacter* (non-*cloacae* complex)	*Candida glabrata*
Enterococcus faecalis	*Enterobacter cloacae* complex	*Candida guilliermondii*
Enterococcus faecium	*Escherichia coli*	*Candida kefyr*
Lactobacillus	*Fusobacterium nucleatum*	*Candida krusei*
Listeria	*Fusobacterium necrophorum*	*Candida lusitaniae*
Listeria monocytogenes	*Haemophilus influenzae*	*Candida parapsilosis*
Micrococcus	*Klebsiella oxytoca*	*Candida tropicalis*
Staphylococcus	*Klebsiella pneumoniae* group	*Cryptococcus gattii*
Staphylococcus aureus	*Morganella morganii*	*Cryptococcus neoformans*
Staphylococcus epidermidis	*Neisseria meningitidis*	*Fusarium*
Staphylococcus lugdunensis	*Proteus*	*Rhodotorula*
Streptococcus	*Proteus mirabilis*	
Streptococcus agalactiae (GBS)	*Pseudomonas aeruginosa*	
Streptococcus anginosus group	*Salmonella*	
Streptococcus pneumoniae	*Serratia*	
Streptococcus pyogenes (GAS)	*Serratia marcescens*	
Resistance genes	*Stenotrophomonas maltophilia*	
mecA	**Resistance genes**	
mecC	CTX-M	
vanA	IMP	
vanB	KPC	
Pan targets	NDM	
Pan gram-negative	OXA	
Pan *Candida*	VIM	
	Pan targets	
	Pan gram-positive	
	Pan *Candida*	

cobas eplex blood culture identification panel

Key parameters	Description
Sample type	Positive blood culture
Sample volume	50 µL
Test duration	~90 minutes
Kit size	12 tests

Ordering information

Kit description	Material number
cobas eplex blood culture identification gram-positive panel (BCID-GP)	09556508001
cobas eplex blood culture identification gram-negative panel (BCID-GN)	09556494001
cobas eplex blood culture identification fungal pathogen panel (BCID-FP)	09556516001

References

[1] Kumar, et al. Crit Care Med 2006 Vol. 34, No. 6. p. 1589-1596.
[2] IDSA: Better Tests Better Care, The Promise of Next Generation Diagnostics, January 2015.
[3] Murray P, et al. (2012), Crit Care Med, Current Approaches to the Diagnosis of Bacterial and Fungal Bloodstream Infections for the ICU.
[4] Skoglund, et al. (2019), J Clin Micro. 57 (1):1015-18.
[5] bioMerieux BioFire Blood Culture Identification 2 (BCID2) Panel package insert. RFIT-PRT-0841-02 June 2020. Nanosphere Verigene Gram-Positive Blood Culture Nucleic Acid Test (BC-GP) package insert. 027-00030-01, Rev. B; October 2012. FilmArray Blood culture identification (BCID) panel [instruction booklet RFIT-PRT-0101-01]. BioFire Diagnostics; Apr 2013.
[6] ePlex [Operator manual, PI1066-Rev. H]. Carlsbad, CA; GenMark Diagnostics; 2020.
[7] Insert pkg cobas eplex BCID-GP IVD, SAP Artwork #: 10196769001; Insert pkg cobas eplex BCID-GN IVD; SAP Artwork #: 10196785001; Insert pkg cobas eplex BCID-FP IVD, SAP Artwork #: 10196734001
[8] Nieman AE, Savelkoul PHM, Beishuizen A, et al. A prospective multicenter evaluation of direct molecular detection of blood stream infection from a clinical perspective. BMC Infect Dis 16, 314 (2016). https://doi.org/10.1186/s12879-016-1646-4.
[9] Based on ePlex Panel inclusivity compared to 2 representative US clinical data sets (not intended as sensitivity/performance claims): i) The GenMark prospective clinical study database (n=1,978), ii) 12 months of BCID clinical isolate data from 5 geographically diverse US hospitals (n=15,793)
[10] Clinical and Laboratory Standards Institute. M100-S23. January 2014. Vol. 33 No. 1.
[11] EUCAST, Guidelines for detection of resistance mechanisms and specific resistances of clinical and/or epidemiological importance.
[12] Box, et al. Pharmacotherapy (2015); 35(3): 269–276).
[13] Timbrook, et al. Clin Infect Dis. (2017) 64 (1): 15-23.
[14] Karino S, et al. (2016) Antimicrob Agents Chemother. 60(6): 3743-50.
[15] Schreier DJ, et al. (2019) Clin Infect Dis. 68 (9): 1456-62.
[16] Seddon MM, et al. (2019) Clin Infect Dis. 69 (3): 414-20.

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