

# Direct Microbial Identification using An Automated Microbial Identification System to Facilitate the EUCAST RAST Method Without Mass Spectrometry

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## Citation

Vishwakarma, K., Gupta, A., Purwar, S., Kaore, N.M., Tank, S., Pundir, S. Direct Microbial Identification using An Automated Microbial Identification System to Facilitate the EUCAST RAST Method Without Mass Spectrometry. *J. Vis. Exp.* (2024), e66588, doi:10.3791/66588 (2024).

## Date Published

May 24, 2024

## DOI

10.3791/66588

## URL

jove.com/video/66588

## Materials

Name	Company	Catalog Number	Comments
<b>ANTIMICROBIAL DISKS</b>			
Amikacin disk 30 µg	Himedia, Mumbai, India	SD035-1VL	Antimicrobial susceptibility testing
Amoxycyclav disk (20/10 µg)	Himedia, Mumbai, India	SD063-1VL	Antimicrobial susceptibility testing
Cefotaxime disk 5 µg	Himedia, Mumbai, India	SD295E-1VL	Antimicrobial susceptibility testing
Ceftazidime disk 10 µg	Himedia, Mumbai, India	SD062A-1VL	Antimicrobial susceptibility testing
Ciprofloxacin disk (5 µg)	Himedia, Mumbai, India	SD060-1VL	Antimicrobial susceptibility testing
Co-Trimoxazole disk (23.75/1.25 µg)	Himedia, Mumbai, India	SD010-1VL	Antimicrobial susceptibility testing
Gentamicin disk 10 µg	Himedia, Mumbai, India	SD016-1VL	Antimicrobial susceptibility testing
Imipenem disk 10 µg	Himedia, Mumbai, India	SD073-1VL	Antimicrobial susceptibility testing
Levofloxacin disk 5 µg	Himedia, Mumbai, India	SD216-1VL	Antimicrobial susceptibility testing
Meropenem disk 10 µg	Himedia, Mumbai, India	SD727-1VL	Antimicrobial susceptibility testing
Piperacillin-tazobactam disk (30/6 µg)	Himedia, Mumbai, India	SD292E-1VL	Antimicrobial susceptibility testing
Tobramycin disk 10 µg	Himedia, Mumbai, India	SD044-1VL	Antimicrobial susceptibility testing
ATCC <i>Escherichia coli</i> 25922	Microbiologics, Minnesota USA	0335A	Recommended Gram negative bacterial strain for quality control in RAST
BacT-Alert 3D 480	bioMerieux, Marcy d' Etoile, France	412CM8423	Continuous automated blood culture system
Biosafety cabinet II Type A2	Dyna Filters Pvt. Limited, Pune, India	DFP-2/21-22/149	For protection against hazardous and infectious agents and to maintain quality control
Blood agar base no. 2	Himedia, Mumbai, India	M834-500G	Preparation of blood agar and chocolate agar
Clinical Centrifuge Model SP-8BL	Laby Instruments, Ambala, India	HLL/2021-22/021	Centrifugation at low and high speed for separation of supernatant

Dispensette S Analog-adjustable bottle-top dispenser	BrandTech, Essex CT, England	V1200	Dispensing accurate amount of saline
MacConkey agar	Himedia, Mumbai, India	M008-500G	Differential media for Lactose fermenters/ non-fermenters Gram negative bacilli
Micropipette (100-1000 $\mu$ L)	Axiflow Biotech Private Limited, Delhi, India	NJ478162	Transferring supernatant after first centrifugation, discarding supernatant after second centrifugation
Micropipette tips (200-1000 $\mu$ L)	Tarsons Products Pvt. Ltd., Kolkata, India	521020	Transferring supernatant after first centrifugation, discarding supernatant after second centrifugation
Mueller-Hinton agar	Himedia, Mumbai, India	M173-500G	Antimicrobial susceptibility testing by Kirby-Bauer method of disk diffusion
Nichrome loop D-4	Himedia, Mumbai, India	LA019	For streaking onto culture media
Nichrome straight wire	Himedia, Mumbai, India	LA022	For stab inoculation
Nulife sterile Gloves	MRK healthcare Pvt Limited, Mumbai, India		For safety precautions
Plain vial (Vial with red top), Advance BD vacutainer	Becton-Dickinson, Cockeysville, MD, USA	367815	Obtaining pellet after second centrifugation
Sheep blood	Labline Trading Co., Hyderabad, India	70014	Preparation of blood agar and chocolate agar
SST II tube, Advance BD vacutainer	Becton-Dickinson, Cockeysville, MD, USA	367954	Supernatant separation in first centrifugation
Sterile cotton swab (w/Wooden stick)	Himedia, Mumbai, India	PW005-1X500NO	Lawn culture of blood culture broth for antimicrobial susceptibility testing
Sterile single use hypodermic syringe 5ml/cc	Nihal Healthcare, Solan, India	2213805NB2	Preparing aliquots from +aBC
VITEK DensiCHEK McFarland reference kit	bioMerieux, Marcy d' Etoile, France	422219	Densitometer to check the turbidity of suspension
VITEK saline solution (0.45% NaCl)	bioMerieux, Marcy d' Etoile, France	V1204	Adjustment of McFarland Standard turbidity
VITEK tube stand	bioMerieux, Marcy d' Etoile, France	533306-4 REV	Stand for proper placement of tubes before ID card inoculation
VITEK tubes	bioMerieux, Marcy d' Etoile, France		Tubes for inoculum preparation
VITEK-2 Compact 60	bioMerieux, Marcy d' Etoile, France	VKC15144	Automated identification and AST system
VITEK-2 GN card	bioMerieux, Marcy d' Etoile, France	21341	Identification of Gram negative bacilli