

APAS Independence Analysis Module

**INFECTION
CONTROL**

The Infection Control Analysis Modules are a suite of software packages used for screening chromogenic culture media for the presence of colonies indicative of MRSA and VRE.

Using the interpretative APAS AI-enabled software, the system automatically reads and reports relevant bacterial growth on chromogenic culture plate media. The APAS Independence automatically detects the presence or absence of colonies which display target chromogenic colours with a high degree of accuracy ensuring a high sensitivity and negative predictive value.

The APAS Independence can be integrated with the LIS to directly deliver results. Results from specimens showing no significant growth can be automatically released to clinicians. Additionally, the triaged positive results enable early assessment by microbiologists, facilitating patient isolation or decolonisation strategies as required.

Infection Control Analysis Module features

Colony detection

Detects the presence of colonies displaying target colours on chromogenic media based on the manufacturer's guidelines.

Colony differentiation

Differentiates those colony types that appear to be presumptive for growth from those that do not.

Force flags

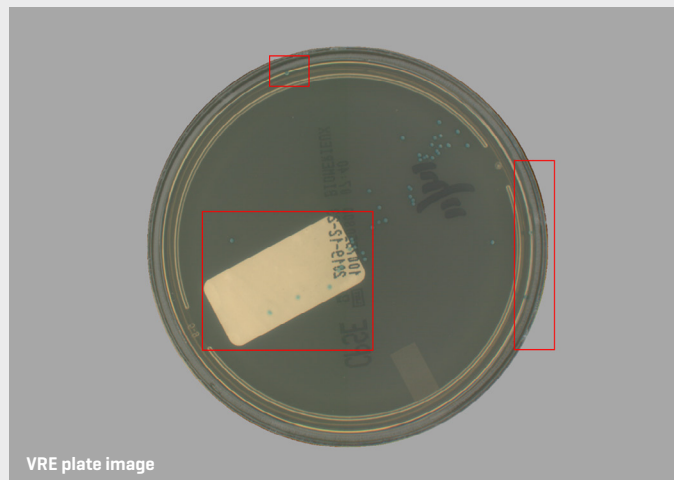
Use the APAS force flag system to automatically direct high priority cases for microbiologist review.

Web report viewer

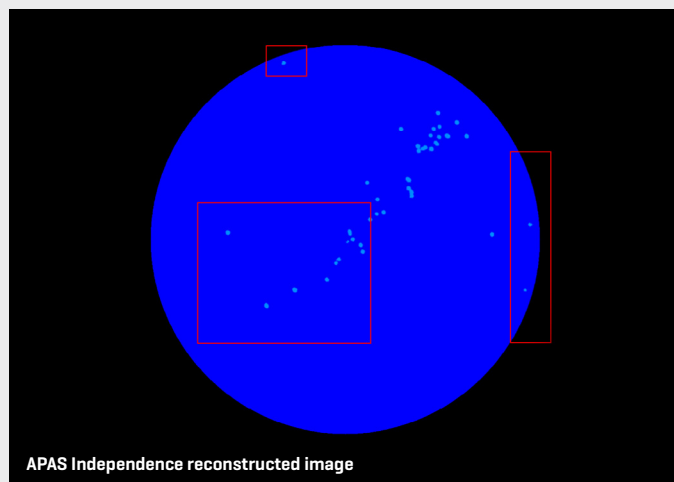
Reports are displayed via the APAS web interface and easily accessible from any workstation.

Accurate growth detection

Detects colonies at plate edges and those obscured by labels and other plate markings.



VRE plate image



APAS Independence reconstructed image



PRECISELY DETECT THAT SINGLE COLONY

Testimonials and scientific studies

The Infection Control Analysis Modules have been demonstrated in peer reviewed literature and clinical placements at leading institutions around the world covering over 40,000 samples.

Scan to read the complete reports.



“In the study 93% of plates could be reported as negative into the LIS and plates directed to a waste stream without the need for a scientist to review.”¹

Alan Williams, Lead Clinical Scientist, Health Services Laboratories

“The study demonstrated that there is an inherent human error when reading plate-in-hand. APAS Independence showed a higher degree of sensitivity and specificity at 48 hours when compared to the gold standard [plate-in-hand], while Kiestra™ digital reads showed a lower sensitivity.”²

Casey Moore, Senior Medical Scientist, Bacteriology, SA Pathology

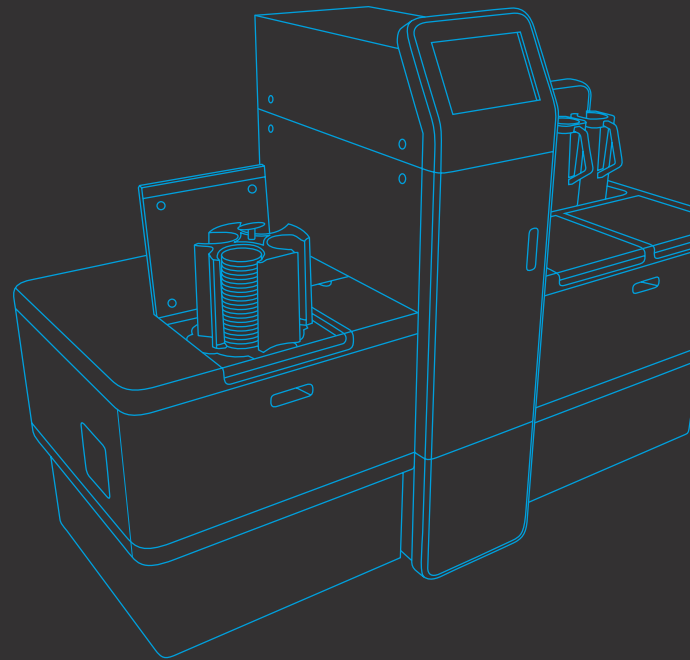
“The establishment of AI-based [APAS Independence] MRSA detection in routine microbiology laboratory can significantly reduce the number of samples that must be processed manually by medical laboratory technicians and microbiologists. Thus, sample throughput can be upscaled with no loss of precision or accuracy.”³

“While AI-based classification for VRE-detection using the APAS Independence was comparable to conventional plate reading at 48 hours read, this study showed a higher sensitivity for AI-based classification at 24 hours read.”⁴

Hilmar Wisplinghoff, Head of Microbiology, Labor Dr Wisplinghoff

“The APAS Independence demonstrated high accuracy and detected 5 (3%) low-level positive cultures (determined to be true positives) missed by manual reading.”⁵

Carroll K.C, Director, Division Medical Microbiology, The Johns Hopkins Hospital



The MRSA Analysis Modules are cleared for use in the United States, Australia and Europe. The VRE Analysis Modules are available for Research Use Only.

Availability of the product in each country depends on the local regulatory marketing authorisation status.

Contact us to find your local distributor.

Clever Culture Systems AG
sales@cleverculturesystems.com
cleverculturesystems.com

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References. ¹Williams, A. and Spratt, A., 2021. Evaluation of an automated culture plate reading instrument for MRSA culture screening. ECCMID 2021. ²Diep, K., Giglio, S., Holds, J., Moore, C. and Morales, M., 2021. Comparison of MRSA plate reading methods: APAS® Independence (Artificial Intelligence), plate-in-hand and Kiestra™ (digital reads). ECCMID 2021. ³Giglio, S., Jazmati, N., Krienke, S., Nowag, A., Wirth, S. and Wisplinghoff, H., 2021. Validation of APAS Independence (CCS) AI-Algorithms to detect MRSA in a routine setup. ECCMID 2021. ⁴Giglio, S., Jazmati, N., Nowag, A., Pohl, B., Quante, X., Wirth, S. and Wisplinghoff, H., 2021. Evaluation of the use of artificial intelligence for the detection of VRE using two different agar types. ECCMID 2021. ⁵Gammel, N., Ross, T.L., Lewis, S., Olson, M., Henciak, S., Harris, R., Hanlon, A. and Carroll, K.C., 2021. Comparison of an Automated Plate Assessment System [APAS Independence] and Artificial Intelligence [AI] to Manual Plate Reading of Methicillin-Resistant and Methicillin-Susceptible Staphylococcus aureus CHROMagar Surveillance Cultures. Journal of Clinical Microbiology, 59(11), pp.e00971-21.