

APAS Independence Analysis Module

URINE

The APAS Independence Urine Analysis Module can automatically detect the presence or absence of bacterial growth associated with uncomplicated urinary tract infections (UTIs) and generates meaningful test reports for the specimen.

The performance of the Urine Analysis Module has been demonstrated in numerous peer reviewed articles from leading institutions and laboratories around the world.

Based on a set of internationally published guidelines^{1,2,3} the Urine Analysis Module's AI-enabled software is installed onto the APAS Independence, providing automated reading and reporting of urine culture plates. All plates showing non-significant growth can be removed from the workflow, enabling laboratories to prioritise their workforce on the positives.

Urine Analysis Module features

Colony detection

Pixel-by-pixel assessment of each plate image to detect bacterial growth.

Colony enumeration

Assesses the growth present to accurately present and report colony enumeration.

Colony differentiation

Differentiates and categorises detected microbial growth into distinct colony morphologies.

Predominance

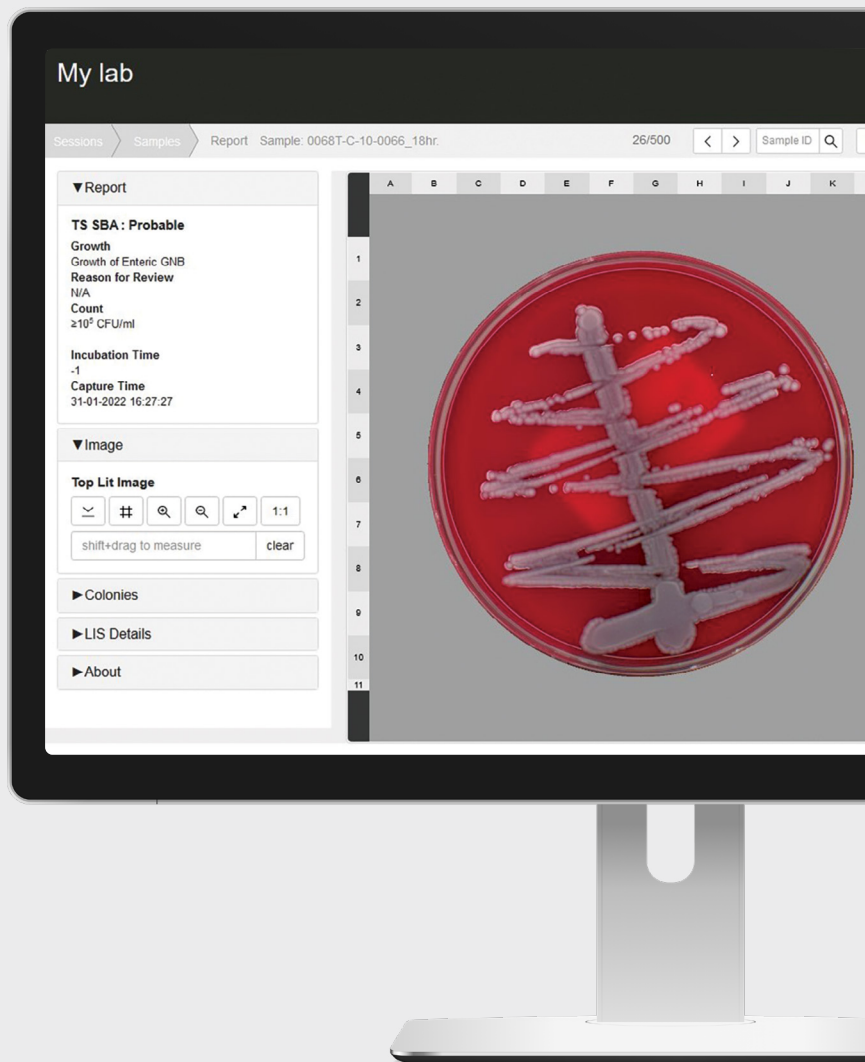
Determine predominance in a mixed culture, when one colony morphology is significantly more numerous than the others.

Culture media

Works with most common culture media used by laboratories, including bi-plates.

Reporting

Sample reports are displayed via the APAS web interface, accessible from any connected workstation for easy review.



Testimonials and scientific studies

The Urine Analysis Module has been demonstrated in clinical studies completed around the world covering over 43,000 samples.

Scan to read the complete reports.



“By removing the negative and non-significant urine cultures from the hands of microbiologists, APAS Independence allows for the redirection of microbiologist time to more complex tasks.”⁴

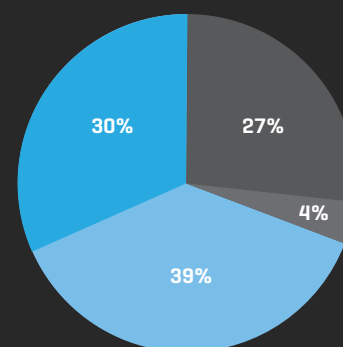
Lisa Brenton, Deputy Principal Scientist, St Vincent’s Hospital Melbourne

“The APAS Independence helps drive consistency in the laboratory through an objective, automated approach to routine laboratory processes.”⁵

Alan Williams, Lead Clinical Scientist, Health Services Laboratories

“The study demonstrated that 69% of cases could be auto cleared by the APAS Independence from the clinical workflow, enabling technologists time to be focused on the cases that are clinically significant.”⁶

Glen Hansen, Director of Microbiology, Hennepin County Medical Center



Total of 6,200 urine plates examined

- Positive [>104 cfu/ml or GNR growth]
- Review [<104 cfu/ml or swarming on the plate]
- Reported Doubtful [<103 cfu/ml, no GNR, no beta-haemolysis detected]
- Reported Negative [No Growth]

The Urine Analysis Module with the APAS Independence is cleared for use in the United States, Australia and Europe.

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. ¹Grabe, M., Bjerklund-Johansen, T.E., Botto, H., Çek, M., Naber, K.G., Tenke, P. and Wagenlehner, F., 2015. Guidelines on urological infections. European association of urology, 182, pp.237-257. ²McCarter, Y.S., Burd, E.M., Hall, G.S., Zervos, M., McCarter, K.S. and Burd, E.M., 2009. Cumitech 20, Laboratory diagnosis of urinary tract infections. ASM Press, Washington, DC, 2009. ³Public Health England. 2016. UK Standards for Microbiology Investigations. B41, Issue no: 8. ⁴Brenton, L., Jardine, D., Waters, M.J., Stanford, T. and Giglio, S., 2018. Image interpretation of urine cultures using APAS Independence – artificial intelligence in the routine laboratory. St Vincent’s Hospital Melbourne. ECCMID 2018. ⁵Williams, A. and Spratt, A., 2022. The first placement of the APAS Independence in the UK. Health Services Laboratories Case Study. ⁶Hansen, G., Salden, J., Nussbaum, A. and Wesenberg, E., 2021. Introduction and use of an AI imaging device [APAS® Independence] to autoverify Urine cultures. ECCMID Online.