

# Smart Notes

**MRSA and coagulase positive staphylococci detection on one 90 mm plate**



**Is one plate able to detect all important MRSA types as well as coagulase positive staphylococci?**

**Yes.** The new Thermo Scientific™ *Brilliance™* Staph 24/*Brilliance* MRSA 2 biplate detects coagulase positive *Staphylococcus aureus* as well as HA-MRSA (healthcare-associated), CA-MRSA (community-associated) and LA-MRSA (livestock-associated). It also detects the recently-described mecC genotype. Results are available in 18-24 hours, facilitating faster patient management.

**Why is it a benefit to use a biplate combination with *Brilliance* Staph 24 Agar and *Brilliance* MRSA 2 Agar rather than to have only one screening medium?**

Simply said: You can skip one confirmation test. The biplate combination *Brilliance* Staph 24/*Brilliance* MRSA 2 Agar enables the simultaneous detection of MRSA (*Brilliance* MRSA 2 Agar) and the identification of coagulase positive staphylococci (*Brilliance* Staph 24 Agar). Only one additional independent test is necessary to confirm the species identification and the confirmation of the meticillin resistance.

**Screening with MRSA medium only\***



Presumptive MRSA

e.g. biochemical ID

Species ID confirming *S.aureus*

e.g. coagulase test

PBP2a Test

Confirming the resistance

**Screening with the biplate combination *Brilliance* MRSA 2 Agar/*Brilliance* Staph 24 Agar\***



Presumptive MRSA

e.g. biochemical ID

Species ID confirming *S.aureus*

PBP2a test

Confirming the resistance

\*Resistance can be confirmed with a number of methods, including latex test kits (e.g. PBP2\*), disc diffusion test, semi/automated susceptibility testing systems and molecular methods such as PCR.

# MRSA - a familiar but complex issue. One screening medium for all MRSA types, including the mecC genotype, and simultaneous detection of meticillin sensitive coagulase positive staphylococci.

## Does a positive PCR reaction always confirm the presence of MRSA?

No. As PCR systems target the *mecA* gene, a mixture of MSSA and MRSE can give a false MRSA positive result when testing directly from the specimen. The new *Brilliance Staph 24/Brilliance MRSA 2* Agar biplate gives a clear indication of whether a sample contains MRSA/MSSE or MSSA/MRSE.

## When would I use this plate?

The new *Brilliance Staph 24/Brilliance MRSA 2* Agar biplate is particularly suited to testing where *Staphylococcus aureus* infections, including those caused by MRSA, are prevalent. Particular examples are surgical wounds and burns. It can also be used where the sample is likely to be contaminated with flora which may mask the presence of staphylococci, such as those taken from leg ulcers.

## Is it possible to use the PBP2' latex test directly with colonies from the medium?

Yes. It is possible to use directly the colonies from *Brilliance MRSA 2* Agar and *Brilliance Staph 24* Agar to perform the PBP2' latex test.

## Does coagulase negative staphylococci grow on *Brilliance Staph 24* Medium?

No. *Brilliance Staph 24* Agar has proven to be a highly specific and reliable medium for the inhibition of coagulase negative staphylococci from wound swabs in a clinical setting.

## Does MRSA grow on *Brilliance Staph 24* Medium?

Yes. Denim blue colonies growing on both the *Brilliance Staph 24* Agar and *Brilliance MRSA 2* Agar indicate the presence of MRSA (or a mixture of MRSA and MSSA).

## Is *Brilliance MRSA 2* Agar able to detect the *mecC* genotype?

Yes. Since the discovery of *mecC* in 2011, all isolates tested have been able to grow on *Brilliance MRSA 2* Agar with the expected colonial colour and morphology.



## Summary

After 18-24 hours the new *Brilliance Staph 24* Agar/*Brilliance MRSA 2* Agar biplate (PO1258E) is able to:

- Detect all MRSA genotypes, including HA-, CA- and LA-MRSA, as well as *mecC* variants
- Simultaneously indicate the presence of MSSA and MRSA and reduce a confirmation test
- Differentiate or inhibit the growth of coagulase negative staphylococci
- Inhibit organisms which can mask the presence of staphylococci on traditional culture media



For further information please visit [thermofisher.com/brilliance-mrsa-staph](http://thermofisher.com/brilliance-mrsa-staph)

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