



NOVOBIOCIN DISKS

- For in vitro use only -

Catalogue No. DN75

Our Novobiocin Disks (5- μ g) are used to differentiate *Staphylococcus saprophyticus* from other clinically significant coagulase-negative staphylococci on the basis of novobiocin resistance.

Novobiocin resistance is intrinsic to *S. saprophyticus* and some other staphylococci, but it is uncommon in other clinically relevant *Staphylococcus* species, such as *S. epidermidis*. Therefore coagulase-negative staphylococci that are resistant to novobiocin are presumptively identified as *Staphylococcus saprophyticus*.

Recommended Procedure A (Rapid)

1. Inoculate two tubes of Tryptic Soy Broth (Dalynn Catalogue No. TT80) lightly with the test organism. There should not be any visible turbidity.
2. Add a Novobiocin Disk to one of the tubes and shake for approximately 10 seconds.
3. Incubate both tubes at 35°C for up to five hours or until the control tube (no disk) reaches the turbidity of a McFarland Standard 0.5.
4. Observe the tube containing the disk for turbidity.

Interpretation of Results

The presence of turbidity in the tube containing the disk indicates resistance to novobiocin and hence a positive result for this test.

The absence of turbidity in the tube containing the disk indicates sensitivity to novobiocin and hence a negative result for this test.

Recommended Procedure B (Preferred)

1. Obtain a pure, overnight culture of the test organism and make an inoculum suspension equivalent to a 0.5 McFarland standard.
2. Using a sterile swab, streak a sample of the organism onto a Mueller Hinton Plate in three directions to obtain a heavy, confluent growth.
3. Aseptically place a Novobiocin Disk onto the surface of the medium and tamp it down gently.
4. Incubate at 35°C for 18 to 24 hours.
5. Measure the zone of inhibition around the disk to the nearest millimeter.

Interpretation of Results

A zone of inhibition ≤ 15 -mm indicates resistance to novobiocin.

A zone of inhibition > 15 -mm indicates sensitivity to novobiocin.

- *Although there are other novobiocin-resistant, coagulase-negative staphylococci, S. saprophyticus is of the most clinical importance*

Quality Control

<u>Organism</u>	<u>Expected Results</u>	
<i>Staphylococcus saprophyticus</i> ATCC 13518	R	Novobiocin resistant
<i>Staphylococcus epidermidis</i> ATCC 14990	S	Novobiocin sensitive

