

# Methitest

## Methicillin strips to detect MRSA

### Description

Abtek methicillin strips are 0.6 x 8 cm long and contain 25mg methicillin per strip. This content is designed to give no zone with MRSA with a high MIC and a small zone, 10mm smaller than a control non- sensitive  $\beta$ -lactamase producing *S aureus*, with MRSA having MIC just above 4 $\mu$ g/ml

The product is tested against a variety of MRSA with different MIC.

The organisms and a control *S aureus* var Oxford are heavily inoculated into 2.5ml of nutrient broth and pre-incubated for 2-4 hours. A swab dipped into the test inoculum is streaked across sensitivity test agar plates, both with and without 6.5% added salt. Oxoid Isosensitest agar or Lab M Nusens agar have been found equally suitable.

The salt free medium is incubated at 30°C and the salt containing medium at 37°C. After overnight incubation zones are measured to the limit of **any** growth, whether this is normal confluent growth, diminished growth, or individual colonies within the zone.

Strain	Distance across zone in mm	MIC $\mu$ g/ml
<i>S aureus</i> NCTC 6571	20	.25
<i>S aureus</i> $\beta$ -lactamase producer	15	2
<i>S aureus</i> $\beta$ -lactamase producer	8	8
<i>S aureus</i> NCTC 11940	0	128

### Instructions for use

1. Inoculate a Columbia agar plate with 2% added salt and a sensitivity agar plate without added salt with a streak of the test organism sufficient to give a heavy growth. Repeat the process with up to 6 organisms per plate. Similarly inoculate a streak of the control sensitive and resistant *S aureus* quoted above.
2. Place the Methitest strip across the centre of the plate at right angles to the inocula. Press to ensure good contact along the whole length.
3. Incubate the low salt plate at 30°C and the high salt plate at 35°C overnight. Some coagulase-negative staphylococci may not grow on the salt agar and/or may need 48 hours incubation to obtain adequate growth
4. Growth is compared with the control strains. No zones or zones 10mm smaller than the oxford strain are MRSA.

### Storage

Store at 2-8°C. Replace lid and refrigerate immediately. If the silica gel has turned white from its original gold colour do not use the strips from this container.



In vitro diagnostic for laboratory use only.  
**Abtek Biologicals Ltd** 