Staphylococcus aureus, Strain 1078

Catalog No. NR-46072

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Contributor:
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Manufacturer:
BEI Resources

Product Description:

Bacteria Classification: Staphylococcaceae, Staphylococcus
Species: Staphylococcus aureus
Strain: 1078 (also referred to as USA700)
NARSA Catalog Number: NRS386
Original Source: Staphylococcus aureus (S. aureus), strain 1078 was isolated from a bloodstream sample in Louisiana, USA.

Comments: S. aureus, strain 1078 is a methicillin-resistant S. aureus (MRSA) strain. S. aureus, strain 1078 was deposited as resistant to erythromycin; positive for mec (subtype IV); MLST sequence type (ST) 72; pulsed-field type USA700; eGenomic spa type 49, eGenomic spa repeats UJGFMGGM; Ridom spa type t126; agr grp I. S. aureus, strain 1078 is a USA700 isolate. USA700 isolates have the same MLST profile (ST 72), SCCmec (subtype IV), spa repeats (UJGFMGGM) and negative for PVL, tsst and enterotoxins. USA700 is associated with infections in both community and healthcare settings. Note: Methicillin is no longer clinically used, however, the term methicillin-resistant Staphylococcus aureus (MRSA) continues to be used to describe S. aureus strains resistant to all penicillins.

S. aureus is a Gram-positive, cluster-forming coccus that normally inhabits human nasal passages, skin and mucus membranes. It is also a human pathogen and causes a variety of pus-forming infections as well as food-poisoning and toxic shock syndrome. In 1961, two years after the introduction of methicillin, a penicillinase-resistant penicillin, S. aureus developed methicillin-resistance due to acquisition of the mecA gene. For the last forty-five years hospital-acquired (HA) MRSA strains have disseminated worldwide. More recently, MRSA strains have been isolated that are not hospital acquired and are referred to as community-associated (CA) MRSA. These CA-MRSA strains differ phenotypically and genotypically from HA-MRSA strains and they are more frequently recovered from skin and soft tissue sources rather than post-operative wounds.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-46072 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Media:
Brain Heart Infusion broth or Tryptic Soy broth or equivalent
Brain Heart Infusion agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:
Temperature: 37°C
Atmosphere: Aerobic

Propagation:
1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 18 to 24 hours.

Citation:

Acknowledgment for publications should read “The following reagent was provided by the Network on Antimicrobial Resistance in Staphylococcus aureus (NARSA) for distribution by BEI Resources, NIAID, NIH: Staphylococcus aureus, Strain 1078, NR-46072.”

Biosafety Level: 2


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References:
1. NARSA, NRS386

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