**Staphylococcus aureus, Strain RN0025**

**Catalog No. NR-45935**

For research use only. Not for human use.

**Contributor:**
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**Manufacturer:**
BEI Resources

**Product Description:**

Bacteria Classification: *Staphylococcaceae, Staphylococcus*

Species: *Staphylococcus aureus*

Strain: RN0025

NARSA Catalog Number: NRS133

Original Source: *Staphylococcus aureus* (S. aureus), strain RN0025 is lysogenic for phage 13 and was derived from UV treatment of *S. aureus*, strain RN1 (NCTC8325, NRS77).1-3

Comments: *S. aureus*, strain RN0025 is a methicillin-sensitive *S. aureus* (MSSA) strain.2,3 *S. aureus*, strain RN0025 was deposited as positive for the staphylokinase virulence factor sak; negative for mecA, rsbU and hlb; MLST sequence type (ST) 8; eGenomic spa type 59, eGenomic spa repeats YHGFFMBQBO; Ridom spa type t211; agr group I.4 Due to the integration of Φ13 in hlb, this strain does not produce beta-hemolysin, but does produce alpha, delta and gamma-hemolysins.5 Note: Methicillin is no longer clinically used, however, the terms methicillin-resistant *Staphylococcus aureus* (MRSA) and methicillin-sensitive *Staphylococcus aureus* (MSSA) continue to be used to describe the susceptibility of *S. aureus* strains to the 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 penicillin-resistant penicillin, *S. aureus* developed methicillin-resistance due to acquisition of the mecA gene. Subsequently, MRSA infections have become widespread in both hospital and community settings.4 As compared to MSSA infections, MRSA infections tend to have more complications such as a higher recurrence rate and higher mortality.5-7

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Brain Heart Infusion broth supplemented with 10% glycerol.

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

**Packaging/Storage:**

NR-45935 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 RN0025, NR-45935."

**Biosafety Level: 2**


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References:
2. NARSA, NRS133

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