**Staphylococcus aureus**, Strain COL

**Catalog No. NR-45906**

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**Contributor:**
Steven R. Gill, PhD, The Institute of Genomic Research, SUNY Buffalo, Buffalo, New York, USA

**Manufacturer:**
BEI Resources

**Product Description:**
Bacteria Classification: *Staphylococcaceae, Staphylococcus*
Species: *Staphylococcus aureus*
Strain: COL
NARSA Catalog Number: NRS100
Original Source: *Staphylococcus aureus* (S. aureus), strain COL is an archaic methicillin-resistant *S. aureus* (MRSA) strain from the United Kingdom.1
Comments: *S. aureus*, strain COL is a MRSA strain. Strain COL was deposited as resistant to tetracycline; positive for mec (subtype I); MLST sequence type (ST) 250; eGenomic spa type 1, eGenomic spa repeats YHGFMQBQLO; Ridom spa type t008; agr grp II.1,2 It also has a large variety of virulence factors.1 The complete genome sequence of *S.aureus*, strain COL is available (GenBank: CP000046.1). Note: Meticillin is no longer clinically used; however, the term meticillin-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 mucous 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.3,4

**Material Provided:**
Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-45906 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 COL, NR-45906.”

**Biosafety Level:** 2

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References:
2. NARS, NRS100.

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