## Staphylococcus aureus, Strain CO-65

### Catalog No. NR-46195

For research use only. Not for human use.

**Contributor:**
Centers for Disease Control and Prevention, Atlanta, Georgia, USA

**Manufacturer:**
BEI Resources

**Product Description:**

<table>
<thead>
<tr>
<th>Bacteria Classification</th>
<th>Staphylococcaceae, Staphylococcus aureus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Staphylococcus aureus</td>
</tr>
<tr>
<td>Strain</td>
<td>CO-65</td>
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<tr>
<td>NARSA Catalog Number</td>
<td>NRS666</td>
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<tr>
<td>Original Source</td>
<td>Staphylococcus aureus (S. aureus)</td>
</tr>
</tbody>
</table>

CO-65 was isolated in 2005 from the blood of an 80-year-old female with sepsisemia, cellulitis and/or a blood stream infection (BSI) in Colorado, USA.¹

**Comments:** S. aureus, strain CO-65 is a clinically-associated methicillin-resistant S. aureus (MRSA) strain. Strain CO-65 was deposited as positive for mec (subtype II); negative for tef and PVL. S. aureus, strain CO-65 is a USA100 isolate.¹ USA100 isolates have the same MLST profile (ST 5) and SCCmec (subtype II) and are usually resistant to β-lactams, erythromycin and spectinomycin as well as being multiresistant to other commonly used therapeutic agents. USA100 is the most prevalent U.S. health care-associated pulsed-field type and is endemic in many U.S. hospitals.²

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 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.³,⁴

### 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-46195 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

**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 1 day.

**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 CO-65, NR-46195.”

**Biosafety Level:** 2


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References:
1. NARSA, NRS666

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