**Staphylococcus aureus, Strain MNHOCH**

**Catalog No. NR-45920**

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: MNHOCH  
NARSA Catalog Number: NRS114

Original Source: *Staphylococcus aureus* (S. aureus), strain MNHOCH was isolated from a patient with non-menstrual toxic shock syndrome (TSS) in the United States.  
Comments: S. aureus, strain MNHOCH is a methicillin-sensitive *S. aureus* (MSSA) strain. Strain MNHOCH was deposited as positive for *seb*; negative for *mec*; MLST sequence type (ST) 8; eGenomic spa type 363, eGenomic spa repeats YGFMBOBLO; Ridom spa type 1024. S. aureus, strain MNHOCH is a staphylococcal enterotoxin B (SEB) producing strain. SEB, like other staphylococcal enterotoxins, is a highly stable, heat and proteolytic resistant, secreted protein that is a cause of TSS and staphylococcal food poisoning. Note: Meticillin is no longer clinically used, however, the terms meticillin-resistant *Staphylococcus aureus* (MRSA) and meticillin-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 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 meticillin, a penicillinase-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. As compared to MSSA infections, MRSA infections tend to have more complications such as a higher recurrence rate and higher mortality.

**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-45920 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 MNHOCH, NR-45920.”

**Biosafety Level:** 2  

**Disclaimers:**  
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References:
1. NARSA, NRS114


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