**Staphylococcus aureus, Strain HIP07930**

**Catalog No. NR-45872**

For research use only. Not for human use.

**Contributor:**
NARSA

**Manufacturer:**
BEI Resources

**Product Description:**

**Bacteria Classification:** Staphylococcaceae, Staphylococcus

**Species:** Staphylococcus aureus

Strain: HIP07930 (also referred to as USA600; 99758)

NARSA Catalog Number: NR5872

**Original Source:** Staphylococcus aureus (S. aureus), strain HIP07930 was isolated in 1999 from the bloodstream of an adult female ICU patient in New York, USA.¹

**Comments:** S. aureus, strain HIP07930 is a hospital-acquired methicillin-resistant S. aureus (HA-MRSA) strain. Strain HIP07930 was deposited as resistant to erythromycin, clindamycin, trimethoprim/sulfamethoxazole, gentamicin and levofloxacin; positive for mec (subtype II); negative for PVL, tst, sea, seb, sec, sed and see; MLST sequence type (ST) 45; pulsed-field type USA600; eGenomic spa type 10, eGenomic spa repeats A2AKEEMBKBM; Ridom spa type t266; agr group I.¹ S. aureus, strain HIP07930 is a USA600 isolate. USA600 isolates have the same MLST profile (ST 45), SCCmec (subtype II or IV), agr group (I) and spa repeats (A2AKEEMBKBM). They are PVL negative and resistant to erythromycin and clindamycin.² ³ Isolates are predominantly found in nares of healthy individuals and bloodstream infections.³ These isolates are associated with a higher rate of clinical failure and mortality, particularly those with a heterogeneous vancomycin-intermediate S. aureus (hVISA) phenotype. While USA600 isolates are uncommon in the United States, the clonally related Berlin strain is widespread throughout Germany, the Netherlands, and Ontario, Canada.© 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.⁴ ⁵ ⁶

**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-45872 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 HIP07930, NR-45872.”

**Biosafety Level: 2**


**Disclaimers:**

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References:
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PubMed: 14605147.
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4. Stegger, M., et al. “Genome Sequence of Staphylococcus aureus Strain CA-347, an USA600
Methicillin-Resistant Isolate.” Genome Announc. 1