

***Staphylococcus aureus*, Strain Sa1554**

Catalog No. NR-51344

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: Sa1554

Original Source: *Staphylococcus aureus* (*S. aureus*), strain Sa1554 was isolated in 2005 from the bloodstream of a patient with septicemia in Helsinki, Finland.^{1,2}

Comments: *S. aureus*, strain Sa1554 can be auto-induced following ultraviolet radiation treatment to produce bacteriophage phi05_1554UV/Sa1554.¹ Bacteriophage phi05_1554UV/Sa1554 belongs to unclassified *Siphoviridae* family of viruses and is a highly selective virus that is extremely effective at lysing *S. aureus*.¹ Bacteriophage phi05_1554UV/Sa1554 ([HMP ID 9791](#)) is a reference genome for [The Human Microbiome Project](#) (HMP). The complete genome of bacteriophage phi05_1554UV/Sa1554 is currently being sequenced at the [J. Craig Venter Institute](#).

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. Subsequently, MRSA infections have become widespread in both hospital and community settings.³

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-51344 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:

Tryptic Soy broth or Brain Heart Infusion broth or equivalent

Tryptic Soy agar with 5% defibrinated sheep blood or Brain Heart Infusion agar 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 obtained through BEI Resources, NIAID, NIH: *Staphylococcus aureus*, Strain Sa1554, NR-51344."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Bamford, D., Personal Communication.
2. Gaidelyte, A., M. Vaara and D. H. Bamford. "Bacteria, Phages and Septicemia." *PLoS One* 2 (2007): e1145. PubMed: 18188406.
3. Deurenberg, R. H. and E. E. Stobberingh. "The Evolution of *Staphylococcus aureus*." *Infect. Genet. Evol.* 8 (2008): 747-763. PubMed: 18718557.

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