

***Aerococcus loyolae*, Strain UMB0080**

**Catalog No. NR-58628**

**For research use only. Not for use in humans.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Aerococcaceae*, *Aerococcus*

Species: *Aerococcus loyolae*<sup>1</sup>

**Note:** The species on the label is incorrect. NR-58628 was deposited to BEI Resources as the proposed species *Aerococcus loyalis* and was updated by the depositor to *Aerococcus loyolae* due to nomenclature rules.

Strain: UMB0080

Original Source: *Aerococcus loyolae* (*A. loyolae*), strain UMB0080 was isolated in 2013 from a urine sample via transurethral catheter of a patient with overactive bladder.<sup>1,2,3</sup>

Comments: *Aerococcus loyolae*, strain UMB0080 was deposited to BEI Resources as sensitive to vancomycin and the type strain for *Aerococcus loyolae*.<sup>1</sup> The complete genome for *A. loyolae*, strain UMB0080 has been sequenced (GenBank: [CP126958](#)).

*Aerococcus* species are Gram-positive, microaerophilic, nonmotile bacteria that are associated with urinary tract infections, bacteremia and endocarditis. This genus is often misidentified as streptococci or staphylococci, leading to decreased diagnosis of *Aerococcus* infections. With the introduction of improved methods for species determination, aerococci are becoming increasingly recognized as human pathogens, particularly in the elderly.<sup>4,5,6</sup>

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in NYC III broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

**Packaging/Storage:**

NR-58628 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:

NYC III broth or equivalent

Tryptic Soy agar with 5% defibrinated sheep blood, Columbia CNA agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic with 5% CO<sub>2</sub>

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 to 2 days.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Aerococcus loyolae*, Strain UMB0080, NR-58628.”

**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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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**References:**

1. Wolfe, A. J., Personal Communication.
2. Choi, B. I., et al. "Taxonomic Considerations on *Aerococcus urinae* with Proposal of Subdivision into *Aerococcus urinae*, *Aerococcus tenax* sp. nov., *Aerococcus mictus* sp. nov., and *Aerococcus loyolae* sp. nov." Int. J. Syst. Evol. Microbiol. 73 (2023). PubMed: 37755156.
3. Hilt, E. E., "Aerococcus urinae Isolated from Women with Lower Urinary Tract Symptoms: *In Vitro* Aggregation and Genome Analysis." J. Bacteriol. 202 (2020): e00170-20. PubMed: 32284319.
4. Rasmussen, M. "Aerococci and Aerococcal Infections." J. Infect. 66 (2013): 467-474. PubMed: 23277106.
5. Rasmussen, M. "Aerococcus: An Increasingly Acknowledged Human Pathogen." Clin. Microbiol. Infect. 22 (2016): 22-27. PubMed: 26454061.
6. Sahu, K. K., et al. "Aerococcus-Related Infections and Their Significance: A 9-Year Retrospective Study." J. Microsc. Ultrastruct. 9 (2020): 18-25. PubMed: 33850708.

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