

***Shigella flexneri*, Strain 2457T**

Catalog No. NR-518

(Derived from ATCC® 700930™)

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Contributor:

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Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Shigella*

Species: *Shigella flexneri* (*S. flexneri*)

Type Strain: 2457T

Serotype: 2a

Comment: The complete genome of *S. flexneri*, strain 2457T has been sequenced (GenBank: AE014073).¹

Shigellae are Gram-negative, nonsporulating, facultative, anaerobic bacilli that are the causative agent of shigellosis. Four species of *Shigella* (*S. dysenteriae*, *S. flexneri*, *S. sonnei* and *S. boydii*) are able to cause the disease. Shigellosis is most commonly associated with children of developing countries where it causes more than one million deaths every year. Transmission generally occurs through contaminated food and water or by person-to-person contact.^{2,3}

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Tryptic Soy Broth supplemented with 10% glycerol.

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

Packaging/Storage:

NR-518 was packaged aseptically in screw-capped plastic 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 equivalent

Tryptic Soy 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 Tryptic Soy Broth.

3. Use several drops of the suspension to inoculate a Tryptic Soy Agar slant and/or plate.
4. Incubate the tubes and plate at 37°C for 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Shigella flexneri*, Strain 2457T, NR-518."

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm.

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References:

1. Wei, J., et al. "Complete Genome Sequence and Comparative Genomics of *Shigella flexneri* Serotype 2a Strain 2457T." Infect. Immun. 71 (2003): 2775–2786. PubMed: 12704152. GenBank: AE014073.
2. Sansonetti, P. J. "Microbes and Microbial Toxins: Paradigms for Microbial-Mucosal Interactions III. Shigellosis: from Symptoms to Molecular Pathogenesis." Am. J. Physiol. Gastrointest. Liver Physiol. 280 (2001): G319–G323. PubMed: 11171613.
3. Niyogi, S. K. "Shigellosis." J. Microbiol. 43 (2005): 133–143. PubMed: 15880088.

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