

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

**Catalog No. NR-518**

(Derived from ATCC® 700930™)

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

**Contributor:**

ATCC®

**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Enterobacteriaceae*, *Shigella*

Species: *Shigella flexneri*

Type Strain: 2457T

Serotype: 2a

Comments: *Shigella flexneri* (*S. flexneri*), strain 2457T was deposited at ATCC® in 2000 by G. Pukkett III, University of Wisconsin, Madison, Wisconsin, USA. The complete genome of *S. flexneri*, strain 2457T has been sequenced (GenBank: [AE014073](#)).<sup>1</sup>

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.<sup>2,3</sup>

**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-518 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:

Nutrient broth or Tryptic Soy broth or equivalent

Nutrient agar or 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 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: *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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.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.
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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