

***Escherichia coli*, Strain HS**

**Catalog No. NR-9280**

**For research only. Not for human use.**

**Contributor:**

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**Product Description:**

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: HS

Serotype: O9

Original Source: *Escherichia coli* (*E. coli*), strain HS was isolated from a laboratory scientist at Walter Reed Army Institute of Research, 1978.<sup>1,2</sup>

Comment: Genome sequence information is available at [Escherichia coli, strain HS Project at TIGR](http://www.tigr.org/blast/blast.cgi?seqtype=1&db=NC_004419).

*E. coli* is a Gram-negative rod-shaped bacterium which occurs singly or in pairs. It is a major facultative inhabitant of the large intestine.

*E. coli*, strain HS is a commensal human isolate that shows no sign of disease in challenge experiments although it is able to colonize the human gastrointestinal tract. This strain is representative of the genomic baseline for human gastrointestinal tract colonization. It is competent and amenable to genetic manipulation.<sup>3</sup>

**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 purify prior to initiating work.

**Packaging/Storage:**

NR-9280 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 broth.
3. Use several drops of the suspension to inoculate an 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: *Escherichia coli*, Strain HS, NR-9280."

**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/bml5/bml5toc.htm](http://www.cdc.gov/od/ohs/biosfty/bml5/bml5toc.htm).

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**References:**

1. Levine, M. M., et al. "*Escherichia coli* Strains that Cause Diarrhoea but do not Produce Heat-Labile or Heat-Stable Enterotoxins and are Non-Invasive." Lancet 311 (1978): 1119-1122. PubMed: 77415.
2. Levine, M. M. and M. B. Rennels. "*E. coli* Colonisation Factor Antigen in Diarrhoea." Lancet 312 (1978): 534. PubMed: 79910.
3. [http://gsc.jcvi.org/projects/msc/e\\_coli\\_and\\_shigella/escherichia\\_coli\\_hs/index.shtml](http://gsc.jcvi.org/projects/msc/e_coli_and_shigella/escherichia_coli_hs/index.shtml)
4. Kaper, J. B., J. P. Nataro and H. L. Mobley. "Pathogenic *Escherichia coli*." Nat. Rev. Microbiol. 2 (2004): 123-140. PubMed: 15040260.

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