Genomic DNA from *Escherichia coli,* Strain B171

Catalog No. NR-9297

For research use only. Not for human use.

Contributor:

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Product Description:

Genomic DNA was isolated from a preparation of *Escherichia coli (E. coli)*, strain B171. Strain B171 is an enteropathogenic *E. coli* (EPEC) that was isolated from a child with diarrhea in Seattle, Washington, 1983.[1,2]

E. coli, strain B171 is known to contain the adherence factor plasmid pB171 (EAF), pYR111 and a small cryptic plasmid.[1,3] pYR11 harbors genes required for resistance to chloramphenicol, streptomycin, sulphathiazole and tetracycline and for the expression of the O-111 polysaccharide.[1] pB171 contains a locus coding for the structural subunit of the bundle-forming pilus which is required for the localized adherence phenotype.[4] Genome sequence information is available at *Escherichia coli,* strain B171 Project at TIGR.

NR-9297 has been qualified for PCR applications by amplification of approximately 1500 bp of the 16S ribosomal RNA.

Material Provided:

Each vial contains 4 to 6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 7.4). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-9297 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Genomic DNA from *Escherichia coli*, Strain B171, NR-9297."

Biosafety Level: 1

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/bmbl5/bmbl5toc.htm.

Disclaimers:

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References:

1. Riley, L. W., L. N. Junio and G. K. Schoolnik. "HeLa Cell Invasion by a Strain of Enteropathogenic *Escherichia coli* that Lacks the O-antigenic Polysaccharide." Mol. Microbiol. 4 (1990): 1661-1666. PubMed: 1706454.
2. Paulozzi, L. J., et al. "Diarrhea Associated with Adherent Enteropathogenic *Escherichia coli* in an Infant and Toddler Center, Seattle, Washington." Pediatrics 77 (1986): 296-300. PubMed: 3513114.
3. Puente, J. L., et al. "The Bundle-Forming Pili of Enteropathogenic *Escherichia coli:* Transcriptional Regulation by Environmental Signals." Mol. Microbiol. 20 (1996): 87-100. PubMed: 8861207.
4. Tobe, T., et al. "Complete DNA Sequence and Structural Analysis of the Enteropathogenic *Escherichia coli* Adherence Factor Plasmid." Infect. Immun. 67 (1999): 5455-5462. PubMed. 10496929. GenBank: AB024946.

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