Product Information Sheet for NR-32216

Neisseria meningitidis, Strain NM3131

Catalog No. NR-32216

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Neisseriaceae*, *Neisseria*
Species: *Neisseria meningitidis*
Strain: NM3131
Serogroup: Y[1]
Original Source: *Neisseria meningitidis (N. meningitidis)*, strain NM3131 was isolated from a human disease case in the United States, 2008.[1]
Comments: The complete genome for *N. meningitidis*, strain NM3131 was sequenced at the Genomic Sequencing Center for Infectious Diseases at University of Maryland School of Medicine (GenBank: APUV00000000).

N. meningitidis is an aerobic, Gram-negative diplococcus and is the leading causative agent of human bacterial meningitis.[2] This organism commonly exists asymptomatically as a commensal bacterium in the nasopharynx and is transmitted by aerosol or secretion.[3] Humans are the only natural reservoir of *N. meningitidis* and distribution of the 13 serogroups is highly dependent on region. Occasional epidemics have been associated with encapsulated strains in serogroups A, B, C, W-135 and Y.[3,4] *N. meningitidis* is able to escape host immunity by transformative and recombinant genetic variability, including capsule switching, which is believed to have contributed to global outbreaks of certain serogroups, raising efforts for vaccine development and disease surveillance.[4,5,6] Polysaccharide vaccines are available for serogroups A, C, W-135 and Y but limited for serogroup B.[3,4]

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in *Haemophilus* Test Media supplemented with 10% glycerol.

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

Packaging/Storage:

NR-32216 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:
Haemophilus Test Media or equivalent
Chocolate agar or equivalent
Incubation:
Temperature: 37°C
Atmosphere: Aerobic with 5% CO_2
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: *Neisseria meningitidis*, Strain NM3131, NR-32216."

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). Current Edition. Washington, DC: U.S. Government Printing Office.

Disclaimers:

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References:

1. Harrison, L. H., Personal Communication.
2. Knapp, J. S. "Historical Perspectives and Identification of *Neisseria* and Related Species." Clin. Microbiol. Rev. 1 (1988): 415-431. PubMed: 3069201.
3. Rosenstein, N. E., et al. "Meningococcal Disease." N. Engl. J. Med. 344 (2001): 1378-1388. PubMed: 11333996.
4. Harrison, L. H., C. L. Trotter and M. E. Ramsay. "Global Epidemiology of Meningococcal Disease." Vaccine 27 (2009): B51-B63. PubMed: 19477562.
5. Bratcher, H. B., J. S. Bennett and M. C. J. Maiden. "Evolutionary and Genomic Insights into Meningococcal Biology." Future Microbiol. 7 (2012): 873-885. PubMed: 22827308.
6. Swartley, J. S., et al. "Capsule Switching of *Neisseria meningitidis*." Proc. Natl. Acad. Sci. USA 94 (1997): 27-276. PubMed: 8990198.

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