

***Clostridium botulinum*, Strain 1347
(Type B, Proteolytic)**

Catalog No. NR-238

(Derived from ATCC® 17841™)

For research only. Not for human use.

Contributor:

ATCC®

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Clostridiaceae, Clostridium*

Species: *Clostridium botulinum*

Strain: 1347 (also referred to as McClung 1347)

Neurotoxin Type:^{1,2} B (proteolytic)

Original Source: *Clostridium botulinum* (*C. botulinum*), strain 1347 was deposited to the ATCC® by Leland S. McClung.

C. botulinum is a Gram-positive spore-forming anaerobe found in soil, dust and marine sediments throughout the world.³ Most clostridia will not grow under aerobic conditions and vegetative cells are killed by exposure to oxygen. Their spores, however, are able to survive long periods of exposure to air. In their active form, these bacteria secrete powerful neurotoxins that result in the paralytic illness botulism.³

Botulism toxin (BoNT) types are distinguished by the inability of polyclonal antibodies that neutralize one toxin type to neutralize any of the other toxin types. There are currently eight types of BoNTs designated by the letters A through H.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Modified Reinforced Clostridial broth supplemented with 10% glycerol.

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

Packaging/Storage:

NR-238 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:

Modified Reinforced Clostridial broth or Reinforced Clostridial broth or equivalent

Modified Reinforced Clostridial agar or Reinforced Clostridial agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Anaerobic

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 48 to 72 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Clostridium botulinum*, Strain 1347 (Type B, Proteolytic), NR-238."

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, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Lindström, M. K., et al. "Identification of *Clostridium botulinum* with API 20 A, Rapid ID 32 A and RapID ANA II." FEMS Immunol. Med. Microbiol. 24 (1999): 267-274. PubMed: 10397310.
2. Lövenklev, M., et al. "Relative Neurotoxin Gene Expression in *Clostridium botulinum* Type B, Determined using Quantitative Reverse Transcription-PCR." Appl. Environ. Microbiol. 70 (2004): 2919-2927. PubMed: 15128552.
3. Hill, K. K., et al. "Genetic Diversity among Botulinum Neurotoxin-Producing Clostridial Strains." J. Bacteriol. 189 (2007): 818-832. PubMed: 17114256.

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