Coli Surface Protein 3 (CS3) from Enterotoxigenic Escherichia coli

Catalog No. NR-49112
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Contributor:
National Institutes of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH)

Manufacturer:
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Product Description:
NR-49112 is a preparation of coli surface protein 3 (CS3) purified from enterotoxigenic Escherichia coli (E. coli) (ETEC). CS3 is a virulence factor responsible for adhesion of bacterial cells to intestinal epithelial cells.

NR-49112 was obtained from E. coli, strain E 9034, grown in DME/F-12 (Dulbecco's Modified Eagle's medium and F-12 serum-free medium) broth in a fermenter under cGMP conditions. The protein was purified from the culture supernatant by ammonium sulfate precipitation and tangential flow filtration. NR-49112 has an approximate molecular weight of 15 kilodaltons.

The ETEC infectious process is initiated by the organism adhering to the host intestinal epithelial cells via interactions between bacterial adhesions, colonization factors [including colonization factor antigens (CFAs), coli surface (CS), and putative colonization factors (PCFs)] and host receptors. ETEC then causes secretory diarrhea by expressing heat-labile enterotoxin and heat-stable enterotoxin.

Material Provided:
Each vial of NR-49112 contains approximately 2 mg of CS3 in PBS, pH 7.4. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-49112 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -80°C ± 10°C immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Coli Surface Protein 3 (CS3) from Enterotoxigenic Escherichia coli, NR-49112.”

Biosafety Level: 1

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References:
2. Beachey, E. H. “Bacterial Adherence: Adhesin-Receptor Interactions Mediating the Attachment of

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