Monoclonal Anti-Shiga Toxin 2 Subunit B, Clone 5A5-E7 (immunoglobulin G, mouse)

Catalog No. NR-10183
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For research use only. Not for human use.

Contributor:
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Product Description:
Antibody Class: IgG
Mouse monoclonal antibody prepared against the B subunit of Shiga-like toxin 2 from *Escherichia coli* (*E. coli*) was purified from mouse ascites by protein G affinity chromatography.

The term Shiga toxin (Stx) refers to two families of related toxins: Shiga toxin/Shiga-like toxin 1 and Shiga-like toxin 2. Shiga toxin is produced by *Shigella dysenteriae*, while Shiga-like toxin 1 and Shiga-like toxin 2 are both produced by enterohemorrhagic strains of *E. coli*. Stx are multimeric molecules that are comprised of two polypeptide subunits, A and B. The Stx B subunit is a pentamer that binds the toxin to glycolipids on host cell membranes and the entire Stx molecule can then enter the cell via endocytosis. Once inside the cell, the Stx A subunit undergoes proteolytic cleavage and the reduction of an internal disulfide bond to generate Stx A₁ and Stx A₂. Stx A₁ is an N-glycosidase that catalytically inactivates the 28S ribosomal RNA subunit to inhibit protein synthesis. The nucleotide sequences of the genes for the Shiga-like toxin 1 B subunit from *E. coli* (GenBank: AB035142) and the Stx B subunit from *S. dysenteriae* (GenBank: M24452) have been reported.

Material Provided:
Each vial contains approximately 50 μg of NR-10183 in PBS. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-10183 was packaged aseptically in vials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Once thawed, the unused material may be stored at 4°C. Freeze-thaw cycles should be avoided.

Functional Activity:
NR-10183 is reactive with the recombinant B subunit of Shiga toxin 2 from *E. coli* as shown by ELISA.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Monoclonal Anti-Shiga Toxin 2 Subunit B, Clone 5A5-E7, NR-10183.”

Biosafety Level: 1

Disclaimers:
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References:


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