Monoclonal Anti-Shiga Toxin 1 Subunit A (immunoglobulin G, Mouse)

Catalog No. NR-867
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For research use only. Not for human use.

Contributor:
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Manufacturer:
Lot No. 6176497 and Lot No. 61992687:
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Lot No. 60134316 and Lot No. 62203819:
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Product Description:
Antibody Class: IgG2ax
Mouse monoclonal antibody to the A subunit of Shiga toxin 1 from *Escherichia coli* (*E. coli*) was purified from a mouse hybridoma clonal cell line that produces monoclonal antibody 1A1.

The term Shiga toxin (Stx) refers to two families of related toxins: Shiga toxin/Shiga toxin 1 and Shiga toxin 2.² Shiga toxin is produced by *Shigella dysenteriae*, while Shiga toxin 1 and Shiga 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.² 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.³

Material Provided:
Each vial contains approximately 50 µg (lot # 6176497), 90 µg (lot # 60134316 and lot # 62203819) or 100 µg (lot # 61992687) of NR-867 in PBS. Sodium azide (0.1%) was added to the preparations of purified monoclonal antibody as a preservative for lot # 6176497, lot # 60134316 and lot # 62203819. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis for each lot.

Packaging/Storage:
NR-867 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. Freeze-thaw cycles should be avoided.

Functional Activity:
NR-867 reacts with recombinant Shiga toxin 1 by Western blot. Please see the Certificate of Analysis for additional lot-specific functional activity information. Applications: ELISA, Western blot, toxin neutralization assay.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Shiga Toxin 1 Subunit A (immunoglobulin G, Mouse), NR-867.”

Biosafety Level: 1

Disclaimers:
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References:

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