Monoclonal Anti–Shiga–Like Toxin 2 Subunit A, Clone 11E10 (produced in vitro)

Catalog No. NR-45117
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For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Antibody Class: IgG1k
Mouse monoclonal antibody prepared against the A subunit of Shiga-like toxin 2 from Escherichia coli (E. coli) was purified from clone 11E10 (ATCC® CRL-1907™) hybridoma supernatant by protein G affinity chromatography. The hybridoma cell line was generated by the fusion of SP2/0 myeloma cells with immunized mouse splenocytes.

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. Both Shiga and Shiga-like toxins are multimeric molecules that are comprised of two polypeptide subunits, A and B. The B subunit is a pentamer that binds 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 sequence of the gene for the Shiga-like toxin 2 A subunit from E. coli has been reported (GenBank: AB035143).

Material Provided:
Each vial of NR-45117 contains approximately 100 µL of purified monoclonal antibody in PBS, pH 7.4. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-45117 was packaged aseptically in screw-capped plastic cryovials and is provided frozen on dry ice. The item should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:
NR-45117 is being released without confirmation of functional activity. The monoclonal antibody produced by hybridoma clone 11E10 has been reported to react with recombinant E. coli Shiga-like toxin 2 subunit A by ELISA and western blot.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Shiga-Like Toxin 2 Subunit A, Clone 11E10 (produced in vitro), NR-45117."

Biosafety Level: 1

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References:


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