Product Information

Anti-Exotoxin A from Pseudomonas Aeruginosa Antibody

Mouse Monoclonal, Clone EXO-68, Purified from Hybridoma Cell Culture

SAB4200871

Product Description

Monoclonal Anti-Exotoxin A from *Pseudomonas aeruginosa* antibody (mouse IgM isotype) is derived from the EXO-68 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with exotoxin A from *Pseudomonas aeruginosa* (GeneID: 877850) as immunogen. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO-2). The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Exotoxin A from *Pseudomonas aeruginosa* antibody specifically recognizes Exotoxin A from *Pseudomonas aeruginosa* (ETA, PE) and has no cross reactivity with staphylococcal enterotoxin A and B (SEA, SEB) and cholera toxin. The antibody may be used in various immunochemical techniques including Immunoblotting (70 kDa) and ELISA.

Pseudomonas aeruginosa is a rod shaped, gram negative, monoflagellated, aerobic to facultative anaerobe bacteria which commonly inhabits soil and aqueous environments.[1,2] *Paeruginosa* is considered an opportunistic human pathogen mainly causing disease in immunocompromised patients. It is especially fatal in cystic fibrosis (CF) patients, but also presents a major problem in chronic wounds, burn wounds and infection of implanted biomaterials such as catheters.[3] The genome of *Paeruginosa* encodes a vast arsenal of virulence factors such as, Type 3 secretion system (T3SS), type 4 pilli and several secreted proteases, lipases and phospholipases.[1]

Pseudomonas Exotoxin A (PE) is the most potent virulence factor secreted by some strains of *Paeruginosa*. It is composed of three structural domains, N-terminal domain (I) responsible for the toxin binding to its host cell receptor, middle domain (II) has a role in toxin translocation across the membrane, and C-terminal domain (III) which has ADP-ribosylation activity.[4,5] The Exotoxin A ADP-ribosylation activity inhibits host elongation factor 2 (EF2), and protein synthesis.[1]

Due to its toxin ADP-ribosylation activity PE is considered as a selective agent for the elimination of specific cell populations resulting in the irreversible shut down of protein synthesis leading to cell death. To reduce the adverse effects of natural PE, mutated PE was used in several attempts to develop recombinant toxin-antibody or cytokines fusion fragments for therapeutic application including cancer immunotherapy.[5-9]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.125-0.25 µg/mL is recommended using exotoxin A from *Pseudomonas aeruginosa*.

ELISA: a working concentration of 2.5-5 µg/mL is recommended using Exotoxin A from *Pseudomonas aeruginosa* for coating.

Note: In order to obtain best results in different techniques and preparations it is recommended to determine optimal working concentration by titration test.

References

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