

Product Information

Anti-Pseudomonas Exotoxin A-Peroxidase antibody produced in rabbit IgG fraction of antiserum

Product Number **SAB4200828**

Product Description

Anti-Pseudomonas Exotoxin A antibody is developed in rabbits using purified Pseudomonas Exotoxin A from *Pseudomonas aeruginosa* as the immunogen. Whole antiserum is purified using protein A immobilized on agarose to provide the IgG fraction of the antiserum and is conjugated to horseradish peroxidase.

Anti-Pseudomonas Exotoxin A-peroxidase antibody specifically recognizes Pseudomonas Exotoxin A and has no cross reactivity with Staphylococcal Enterotoxin A (SEA), Staphylococcal Enterotoxin B (SEB), or Cholera Toxin. The antibody may be used in various immunochemical techniques including ELISA.

Pseudomonas aeruginosa is a Gram-negative bacterium that rarely causes disease in humans but does affect certain populations, such as patients with cystic fibrosis (CF) or burn wounds, who are prone to such infections.³

Pseudomonas Exotoxin A (PE) is the most potent virulence factor secreted by *P. aeruginosa*. 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) has ADP-ribosylation activity.¹⁻²

PE is considered as a selective agent for the elimination of specific cell populations due to its toxin ADP-ribosylation activity resulting in the irreversible shut down of protein synthesis. 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.²⁻⁶

Reagent

Supplied as a lyophilized powder.

Preparation Instructions

Reconstitute the contents of the vial with 0.1 ml of distilled water to a final antibody concentration of 4 mg/ml. After reconstitution, the solution contains 2.5% trehalose and 0.05% MIT in 0.01 M sodium phosphate buffered saline.

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

Store the lyophilized product at 2–8 °C. For extended storage after reconstitution, keep at –20 °C in working aliquots. Avoid repeated freeze-thaw cycles. For continuous use after reconstitution, keep at 2–8 °C for up to 1 month. Solutions at working dilution should be discarded if not used within 12 hours.

Product Profile

Direct ELISA: a working dilution of 1:10,000-1:20,000 is recommended using 1 µg/ml Pseudomonas Exotoxin A for coating.

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

References

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4. Weldon, J.E., and Pastan, I., *FEBS J.*, **278**, 4683-700 (2011).
5. Simon, M. et al., *Mol Cancer Ther.*, **13**, 375-85 (2014).
6. Gao, J. et al., *Mol Cancer Ther.*, **7**, 3399-407 (2008).

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