SANTA CRUZ BIOTECHNOLOGY, INC.

Pseudomonas aeruginosa (95/159): sc-80923



BACKGROUND

Pseudomonas aeruginosa is a Gram-negative, aerobic, rod-shaped bacterium with unipolar motility. It is an opportunistic pathogen of plants and humans and can infect the urinary tract, respiratory and gastrointestinal system, soft tissues, bones and joints leading to severe systemic infections of immunosuppressed patients in hospitals. P. aeruginosa secretes a variety of pigments, including pyocyanin (blue-green), fluorescein (pyoverdin), and pyorubin (redbrown). This organism can achieve anaerobic growth with nitrate as a terminal electron acceptor, and, in its absence, it is also able to ferment arginine by substrate-level phosphorylation. Adaptation to microaerobic or anaerobic environments is essential for certain lifestyles of *P. aeruginosa*, such as during lung infection in cystic fibrosis patients where thick layers of alginate surrounding bacterial mucoid cells can limit the diffusion of oxygen. This antibody is specific for serotype 9 and does not react with other species tested.

REFERENCES

- 1. Boukraa, L. and Niar, A. 2007. Sahara honey shows higher potency against Pseudomonas aeruginosa compared to North Algerian types of honey. J. Med. Food 10: 712-714.
- 2. Harrison, F., Paul, J., Massey, R.C. and Buckling, A. 2008. Interspecific competition and siderophore-mediated cooperation in Pseudomonas aeruginosa. ISME J. 2: 49-55.
- 3. Pawar, M., Mehta, Y., Purohit, A., Trehan, N. and Daniel, R.V. 2008. Resistance in Gram-negative bacilli in a cardiac intensive care unit in India: risk factors and outcome. Ann. Card. Anaesth. 11: 20-26.
- 4. Muthu, K., He, L.K., Melstrom, K., Szilagyi, A., Gamelli, R.L. and Shankar, R. 2008. Perturbed bone marrow monocyte development following burn injury and sepsis promote hyporesponsive monocytes. J. Burn Care Res. 29: 12-21.
- 5. Jahoor, A., Patel, R., Bryan, A., Do, C., Krier, J., Watters, C., Wahli, W., Li, G., Williams, S.C. and Rumbaugh, K.P. 2008. Peroxisome proliferator activated receptors mediate host cell pro-inflammatory responses to P. aeruginosa autoinducer. J. Bacteriol. 190: 4408-4415.
- 6. Dia, N.M., Ka, R., Dieng, C., Diagne, R., Dia, M.L., Fortes, L., Diop, B.M., Sow, A.I. and Sow, P.S. 2008. Prevalence of nosocomial infections in a university hospital (Dakar, Senegal). Med. Mal. Infect. 38: 270-274.
- 7. Hocquet, D., Muller, A., Blanc, K., Plesiat, P., Talon, D., Monnet, D.L. and Bertrand, X. 2008. Relationship between antibiotic use and incidence of MexXY-OprM overproducers among clinical isolates of Pseudomonas aeruginosa. Antimicrob. Agents Chemother. 52: 1173-1175.
- 8. Visscher, S., Schurink, C.A., Melsen, W.G., Lucas, P.J. and Bonten, M.J. 2008. Effects of systemic antibiotic therapy on bacterial persistence in the respiratory tract of mechanically ventilated patients. Intensive Care Med. 34: 692-699.

SOURCE

Pseudomonas aeruginosa (95/159) is a mouse monoclonal antibody raised against Pseudomonas aeruginosa serotype 9.

PRODUCT

Each vial contains 50 μ g lgG₁ in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Pseudomonas aeruginosa (95/159) is recommended for detection of Pseudomonas aeruginosa serotype 9 of Pseudomonas aeruginosa origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.