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Product Information

Anti-Proteus vulgaris antibody
Mouse monoclonal, Clone P.vul-129
purified from hybridoma cell culture

Product Number **SAB4200849**

Product Description

Monoclonal Anti-Proteus vulgaris antibody (mouse IgG1 isotype) is derived from the P.vul-129 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with UV-inactivated *P. vulgaris* OX19 bacteria (ATCC 6380) as immunogen. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Proteus vulgaris specifically recognizes *P. vulgaris* whole extract, the antibody has no cross reactivity with whole extract of *Proteus mirabilis, P. gingivalis, E. coli, Pseudomonas aeruginosa, Shigella flexneri, Staphylococcus aureus,* or *Salmonella enterica*. The antibody is recommended to be used in various immunological techniques, including immunoblot (unidentified protein at ~70 kDa). Detection of the *P*. vulgaris band by immunoblotting is specifically inhibited by the immunogen.

Proteus vulgaris, a Gram-negative, rod-shaped bacterium, belongs to the Enterobacteriaceae family. Members of the genus *Proteus* (*Proteus* spp.), which also includes *Proteus mirabilis*, *Proteus penneri*, *and Proteus hauseri*, originally characterize by their ability to swarm on solid surfaces, are widespread in the environment and the gastrointestinal tract of human and animals and known to be opportunistic pathogens isolated from urine, wounds, and other clinical sources. The *Proteus* spp. bacteria are distinguished by their reactions for indole production, salicin fermentation, and aesculin hydrolysis.[1-3] *P. vulgaris* produces indole, which differentiates it from the indole-negative *P. mirabilis* and *P. penneri*.[1-3]

Proteus spp. bacteria may also be found in soil or water habitats where they often regarded as indicators of fecal pollution and a contamination threat for potential water or seafood poisoning.[1]

In the *Proteus* spp. group, *P. mirabilis* is encountered in the community and causes the majority of urinary tract *Proteus* spp. infections, whereas *P. vulg*aris and *P. penneri* are less common and mainly associated with nosocomial none urinary infections.[2,4]

P. vulgaris has a number of putative virulence factors, including the secreted hemolytic haemolysin and urease, which has been suggested to contribute to host cell invasion, cytotoxicity, and bacterial ability to invade uroepithelial cells.[4] *P. vulgaris*, *P. mirabilis,* and *P. penneri* harbor resistance to β-lactam antibiotics as it is capable of producing inducible β-lactamases that hydrolyze primary and extended-spectrum penicillins and cephalosporins. [5-6]

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 of concentration 0.005-0.01 μg/mL is recommended using dead *P. vulgaris* bacteria lysate.

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

References

1. Drzewiecka, D., *Microb. Ecol.*, **72**, 741-758 (2016).
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5. Bahashwan, S.A., and Shafey, H.M., *Euro. Sci. J.*, **9**, 188-202 (2013).
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