

Yersinia pestis F1 (YPF19): sc-52303

BACKGROUND

Yersinia pestis is a gram-negative *coccobacillus* belonging to the family Enterobacteriaceae. *Y. pestis* is primarily a rodent pathogen, with humans being an accidental host when bitten by an infected rat flea. It has a number of virulence factors that enable it to survive in humans by facilitating use of host nutrients, causing damage to host cells, and subverting phagocytosis and other host defense mechanisms. The plasmid-encoded protein, virulence antigen (v), is a major protective immunogen that is involved in the translocation of the collection of toxins called *Yersinia* outer proteins (YOPs). The transcriptional activator PhoP is essential for survival of *Yersinia pestis* in macrophage phagosomes. However, the phagosomes occupied by *Y. pestis* have not been well characterized, and the mechanism by which PhoP promotes bacterial survival in these vacuoles is not fully understood.

REFERENCES

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7. Khushiramani, R., Tuteja, U., Shukla, J., Panikkar, A. and Batra, H.V. 2006. Virulence markers of LCR plasmid in Indian isolates of *Yersinia pestis*. APMIS 114: 15-22.
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SOURCE

Yersinia pestis F1 (YPF19) is a mouse monoclonal antibody raised against purified F1 antigen from *Yersinia pestis* vaccine strain EB.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Yersinia pestis F1 (YPF19) is recommended for detection of capsule-bearing strains of *Yersinia pestis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of *Yersinia pestis* F1: 21 kDa.

SELECT PRODUCT CITATIONS

1. Rosales-Mendoza, S., Soria-Guerra, R.E., Moreno-Fierros, L., Alpuche-Solis, A.G., Martínez-González, L. and Korban, S.S. 2010. Expression of an immunogenic F1-V fusion protein in lettuce as a plant-based vaccine against plague. Planta 232: 409-416.

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.