

Product Information

**Anti-*F. tularensis* LPS antibody,
Human-rabbit Chimeric monoclonal**
Clone TL1, purified recombinant antibody

Product Number **SAB4200833**

Product Description

Monoclonal Anti-*F. tularensis* LPS (Human-rabbit Chimeric antibody) is derived from rabbit immunized with *Francisella tularensis* LPS. The purified recombinant antibody is produced in CHO cells, grown in a serum-free medium.

Monoclonal Anti-*F. tularensis* LPS specifically recognizes *Francisella tularensis* and does not cross react with *Escherichia coli* bacteria. The antibody may be used in various immunochemical techniques including immunoblot, immunofluorescence, and ELISA. Detection of the *F. tularensis* LVS (live vaccine strain) in immunoblotting is specifically inhibited by the immunogen. The recombinant antibody is composed of Human Fc chain and variable regions from rabbit origin, therefore it is recommended to use Anti-Human Fc antibody as the secondary antibody for detection.

Francisella tularensis is a Gram-negative bacteria that causes tularemia. Tularemia is a highly contagious and fatal zoonotic disease isolated from hundreds of animal species with severe clinical symptoms, including skin and gastrointestinal lesions and pneumonia.¹⁻³ *F. tularensis* is listed as a category A biothreat agent by the CDC due to its aerosol and water-borne dissemination, high infectivity, and its potential to high morbidity and mortality in humans. In nature *F. tularensis* can persist for long periods at low temperatures in animal carcasses, soil, or water. There are three major *F. tularensis* groups classified according to their geographic and virulence status.²⁻³

F. tularensis virulence is unique and researchers are trying to understand the bacteria pathogenesis, mechanism of action, and discover its virulence factors since it does not appear to secrete any toxins.²⁻⁴ Furthermore, the LPS has an unusual structure and is ~1000-fold less potent than most Gram-negative bacterial LPS and does not activate cells via Toll-like receptor 4 (TLR4).³⁻⁴ Hence *F. tularensis* LPS can be used as good target for generation of specific antibodies and a potential vaccine for *F. tularensis* infections.^{1,5}

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 1 µg/mL is recommended using *Francisella tularensis* LVS (live vaccine strain) extract.

ELISA: a working concentration of 0.5-1 µg/mL is recommended using *Francisella tularensis* LVS (live vaccine strain).

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. Mechaly, A. et al., *Anal. Biochem.*, **506**, 22-7 (2016).
2. Pilo, P., *Front. Cell Infect. Microbiol.*, **8**, 258 (2018).
3. McLendon, M.K. et al., *Annu. Rev. Microbiol.*, **60**, 167-85 (2006).
4. Ancuta, P. et al., *Infect. Immun.*, **64**, 2041-6 (1996).
5. Fulop, M. et al., *Vaccine*, **19**, 4465-72 (2001).

VS,DR,OKF,MAM 06/19-1