Product Datasheet

Francisella Tularensis LPS Antibody (FB11)
NB110-7999

Unit Size: 0.5 mg

Store at 4C. Do not freeze.

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Publications: 1

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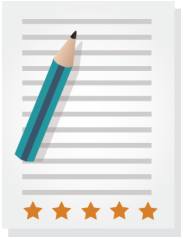
Updated 12/20/2023 v.20.1



NB110-7999

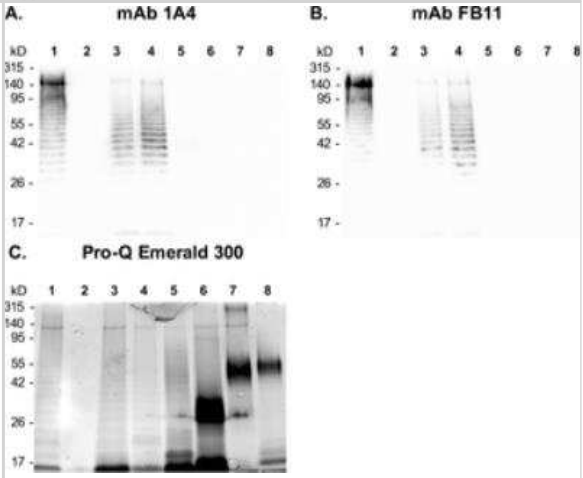
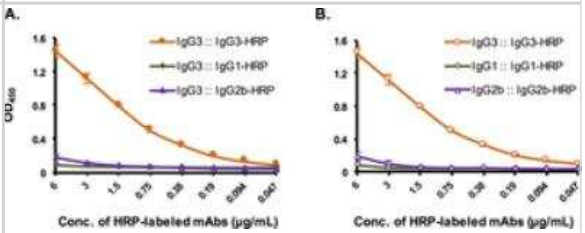
Francisella Tularensis LPS Antibody (FB11)

Product Information	
Unit Size	0.5 mg
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	FB11
Preservative	0.09% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS (pH 7.4)

Product Description	
Host	Mouse
Species	Bacteria
Specificity/Sensitivity	Recognizes LPS of virulent and vaccine strains of Fr. tularensis. There is no crossreactivity with Fr. novicida, Br. abortus, Br. suis, Br. melitensis, Br. ovis, Y. pestis, Y. enterocolitica, Y. pseudotuberculosis, E. coli, and V. cholerae. The binding site for MAb FB11 is located on the O-antigen polysaccharide chain which consists of tetrasaccharide fragments and has the following structure: -4)alpha-D-GalpNAcAN-(1-4)-alpha-DGalpNAcAN-(1-3)-beta-D-QuipNAc-(1-2)-beta-Quip4NFm-(1. Tetrasaccharide D-GalpNAcAN-(1-4)-alpha-D-GalpNAcAN-(1-3)-beta-D-QuipNAc-(1-2)-beta-D-Quip4NFm and trisaccharide D-GalpNAcAN-(1-3)-beta-D-QuipNAc-(1-2)-beta-D-Quip4NFm compete in ELISA for binding MAb FB11 with LPS of Fr. tularensis.
Immunogen	Hybridoma clone for MAb FB11 has been derived from hybridization of Sp2/0 myeloma cells with spleen cells of Balb/c mice immunized with Fr. tularensis.

Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Sandwich ELISA, Direct ELISA, Sandwich ELISA Capture
Recommended Dilutions	Western Blot, ELISA 1:100-1:2000, Immunocytochemistry/ Immunofluorescence 1:10-1:2000, Sandwich ELISA, Sandwich ELISA Capture, Direct ELISA
Application Notes	ELISA: Use at an assay dependent dilution. Can be used in sandwich ELISA. The detection limit for the immunoassay is 0.125 ng/ml.IF: Use at an assay dependent dilution.

Images

Western Blot: Francisella Tularensis LPS Antibody (FB11) [NB110-7999] - Specificity of mAbs 1A4 and FB11. Inactivated F. tularensis SCHU S4 (lane 1), SCHU S4 deltawbtI (lacks O-antigen, lane 2), LVS (lane 3), F. tularensis subsp. holarctica (lane 4), subsp. novicida (lane 5), F. philomiragia (lane 6), purified B. pseudomallei LPS (lane 7) and E. coli LPS (lane 8) were separated on 12% SDS-PAGE gels and blotted onto nitrocellulose membranes. The membranes then were probed with mAb FB11. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0195308), licensed under a CC-BY license.	
Western Blot: Francisella Tularensis LPS Antibody (FB11) [NB110-7999] - Western Blot illustrates the specificity of mAb 1A4/ NB110-7999 and FB11 used to probe the membranes. Inactivated F. tularensis SCHU S4 (reference ladder: lane 1), SCHU S4 delta wbtI which lacks O-antigen (lane 2), LVS (lane 3), F. tularensis subsp. holarctica (lane 4), subsp. novicida (lane 5), F. philomiragia (lane 6), purified B. pseudomallei LPS (lane 7) and E. coli LPS (lane 8). All were separated on 12% SDS-PAGE gels were used for separation and were blotted onto nitrocellulose membranes. Panel 3 shows how the Pro-Q emerald 300 LPS staining demonstrates the existence of LPS in these samples. Citation: Nualnoi T, Kirosingh A, Basallo K, Hau D, Gates-Hollingsworth MA, Thorkildson P, et al. (2018) Immunoglobulin G subclass switching impacts sensitivity of an immunoassay targeting Francisella tularensis lipopolysaccharide. PLoS ONE 13(4): e0195308. https://doi.org/10.1371/journal.pone.0195308	
Direct ELISA: Francisella Tularensis LPS Antibody (FB11) [NB110-7999] - mAb 1A4/ NB110-7999 antibody was used for a direct ELISA to determine an antibody-antibody interaction. Panel A shows the binding interaction between each mAb subclasses and 1A4 IgG3. Panel B shows the self-association of each mAb 1A4 subclass. Citation: Nualnoi T, Kirosingh A, Basallo K, Hau D, Gates-Hollingsworth MA, Thorkildson P, et al. (2018) Immunoglobulin G subclass switching impacts sensitivity of an immunoassay targeting Francisella tularensis lipopolysaccharide. PLoS ONE 13(4): e0195308. https://doi.org/10.1371/journal.pone.0195308	
Sandwich ELISA Capture: Francisella Tularensis LPS Antibody (FB11) [NB110-7999] - Table shows the limit of detection of F. tularensis LPS (ng/mL) for each combination of mAb 1A4 antibody subclass variants determined in antigen capture ELISA. LODs shown are mean +/- standard deviation and the ELISAs were performed in quadruplicate. Bold indicates poorest LOD, derived using mAb 1A4 IgG3 as both capture and detector mAbs. Italics indicate the improved LODs, obtained using non-IgG3 1A4 mAb subclass variants. Citation: Nualnoi T, Kirosingh A, Basallo K, Hau D, Gates-Hollingsworth MA, Thorkildson P, et al. (2018) Immunoglobulin G subclass switching impacts sensitivity of an immunoassay targeting Francisella tularensis lipopolysaccharide. PLoS ONE 13(4): e0195308. https://doi.org/10.1371/journal.pone.0195308	

Publications

Nualnoi T, Kirosingh A, BaSallo K et al. Immunoglobulin G subclass switching impacts sensitivity of an immunoassay targeting Francisella tularensis lipopolysaccharide. PLoS ONE 2018-04-09 [PMID: 29630613] (Bacteria)

Details:
The Novus Francisella Tularensis LPS Antibody was used in a study looking at the specificity of LPS antibodies on various strains of bacteria

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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