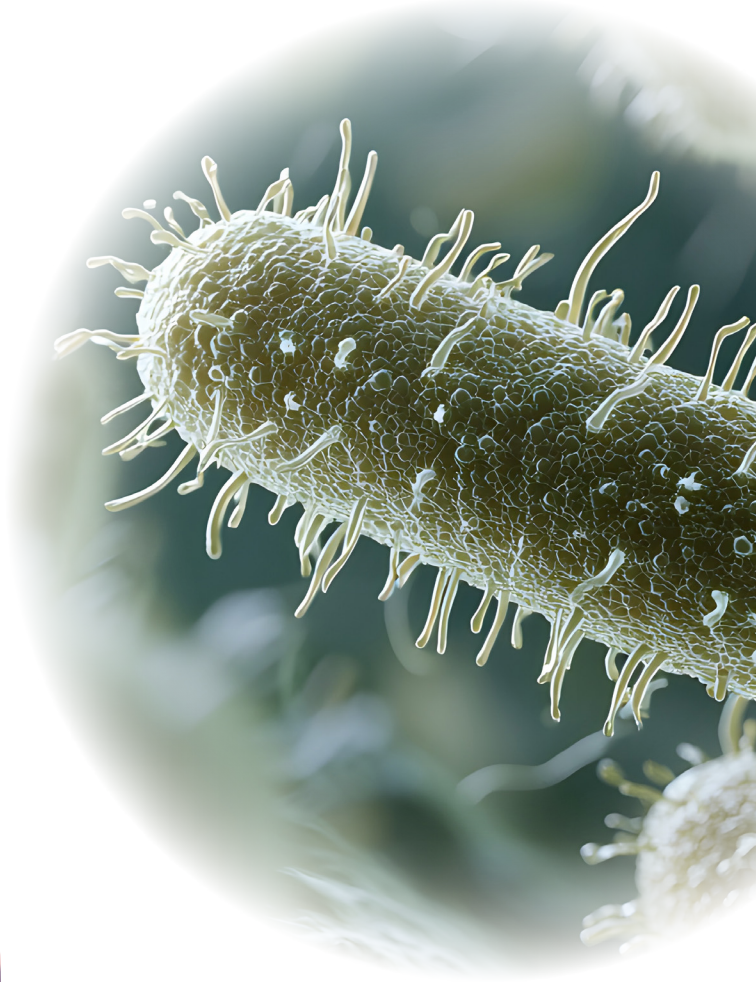
Anti-Yersinia

Specific IgA and IgG antibody detection



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The new language of life

Infections with *Yersinia*
Enteritis and more ...

Pathogen

Yersinia is a genus of anaerobic rod-shaped bacteria. The intestinal pathogenic species *Yersinia enterocolitica* and *Yersinia pseudotuberculosis* secrete numerous virulence factors (Yops, Yersinia outer proteins).

Epidemiology

Yersinia enterocolitica and *Yersinia pseudotuberculosis* are widespread worldwide. Yersinioses are among the most common diarrheal diseases caused by bacteria. Children under 5 years of age are most commonly affected.

Transmission

The transmission of *Yersinia enterocolitica* occurs mainly through contaminated and insufficiently heated animal products, e. g. raw pork. The bacteria are also found in beef, mussels, oysters, milk and ice cream. Wild animals are probably the most important reservoir for *Yersinia pseudotuberculosis*, but the pathogen is also found in surface water.

Clinical Symptoms

Yersinia enterocolitica can cause enterocolitis with fever, abdominal pain and diarrhea and lead to reactive or post-infectious arthritis. In children, the infection usually leads to gastroenteritis with vomiting and diarrhea.
Yersinia pseudotuberculosis is a causative agent of mesenteric lymphadenitis with acute terminal ileitis (pseudoappendicitis).

Diagnosis

The diagnosis is based on the clinical symptoms and confirmed by laboratory analyses. Various direct (PCR, cultivation, MS) and indirect methods (antibody determination by ELISA or immunoblot) are available for laboratory diagnostic confirmation.

Anti-Yersinia IgA / IgG
Specific antibody determination

Antigen

The Alegria Anti-Yersinia IgA and IgG Monotests are based on recombinant Yop D antigen of *Yersinia enterocolitica* for a specific determination of IgA and IgG antibodies.

Calibration

The Alegria Anti-Yersinia IgA and IgG Monotests are calibrated using internal reference samples. Results are expressed in U/mL.

Sensitivity and Specificity

	Sensitivity	Specificity	Diagnostic Efficiency
Anti-Yersinia IgA	80.0 %	98.9 %	95.4 %
Anti-Yersinia IgG	98.1 %	97.6 %	97.8 %

Precision Anti-Yersinia IgA

	Intraassay Repeatability		Interassay Reproducibility	
	Antibody Activity (U/mL)	Coeffcient of Variation (CV)	Antibody Activity (U/mL)	Coeffcient of Variation (CV)
Sample 1	5.2 U/mL	6.9 %	4.6 U/mL	4.8 %
Sample 2	28.0 U/mL	5.3 %	30.4 U/mL	7.2 %
Sample 3	93.1 U/mL	7.9 %	96.3 U/mL	7.4 %

Precision Anti-Yersinia IgG

	Intraassay Repeatability		Interassay Reproducibility	
	Antibody Activity (U/mL)	Coeffcient of Variation (CV)	Antibody Activity (U/mL)	Coeffcient of Variation (CV)
Sample 1	10.8 U/mL	5.5 %	9.6 U/mL	8.2 %
Sample 2	22.1 U/mL	6.1 %	23.1 U/mL	4.6 %
Sample 3	142.9 U/mL	7.3 %	164.2 U/mL	9.1 %

Product Highlights

- ELISA-based random access determination of IgA and IgG antibodies against recombinant Yop D antigen of *Yersinia enterocolitica*
- Full automation and complete traceability with Alegria 2
- Lab-on-a-Strip: ready-to-use test-specific reagents in individually sealed and barcoded Alegria Monotest strips
- Excellent diagnostic efficiency
- High reproducibility for reliable test results
- Economical all-in-one Alegria Monotests, particularly suited for small series
- Flexible combination of Alegria Monotests for optimal workflow efficiency

Ordering *information*

- Anti-Yersinia IgA ..... **ORG 913A**
- Anti-Yersinia IgG ..... **ORG 913G**

Scan here **for more information** about Alegria Anti-Yersinia Monotests

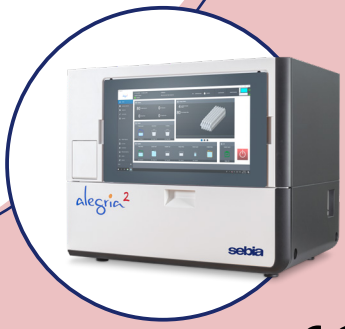
Literature

Seabaugh, J.A. and Anderson, D.M. (2024) Pathogenicity and virulence of Yersinia. Virulence 15, 2316439.

Fang, X. *et al.* (2023) Yersinia enterocolitica in Crohn's disease. Front. Cell. Infect. Microbiol. 13, 1129996.

Triantafillidis, J. K. *et al.* (2020) Terminal Ileitis due to Yersinia Infection: An Underdiagnosed Situation. Biomed. Res. Int. 1240626.

Bancerz-Kisiel, A. *et al.* (2018) The Most Important Virulence Markers of Yersinia enterocolitica and Their Role during Infection. Genes (Basel) 9, 235.



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