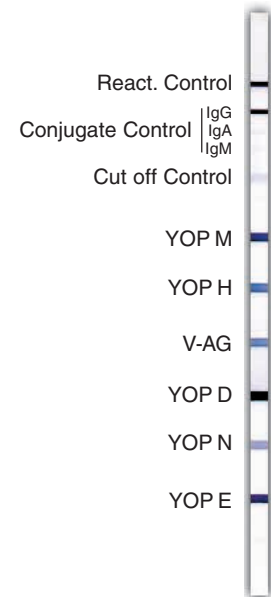


recomLine Yersinia IgG recomLine Yersinia IgA [IgM]

Strip-Immunoassay with antigens produced by recombinant techniques for the detection of IgG, IgM or IgA antibodies directed *Y. enterocolitica* and *Y. pseudotuberculosis*.

In the past years, *Yersinia enterocolitica* has become increasingly important as an intestinal bacterium that is pathogenic for human beings. This organism is transmitted orally by contaminated water or food. Typical symptoms of an acute *Yersinia* infection are diarrhoea, stomach ache, and fever. Complications such as reactive arthritis, erythema nodosum and other rheumatic diseases can occur, especially with HLA-B27 carriers. These patients typically show high and persistent IgA titers against *Yersinia* antigens.

The *recomLine Yersinia* tests are, with the antigens sprayed onto the nitrocellulose, qualitative in vitro tests for the detection of antibodies directed against plasmid encoded virulence proteins. The antigens (YOPs) used in these tests are localized on the cell surface and are expressed only by strains of *Yersinia* that are pathogenic for human beings. In contrast to the conventional Widal test the *recomLine Yersinia* tests display superior sensitivity and specificity - all infections with *Yersinia* pathogenic for man are detected. At the same time, the detection of past infections is possible with the *recomLine Yersinia* tests. Therefore these tests suit ideal for the identification of *Yersinia* induced immunopathological complications and chronic yersiniosis. The separate detection of IgG and IgA antibodies can provide helpful evidence for the clarification of reactive arthritis and other symptoms.



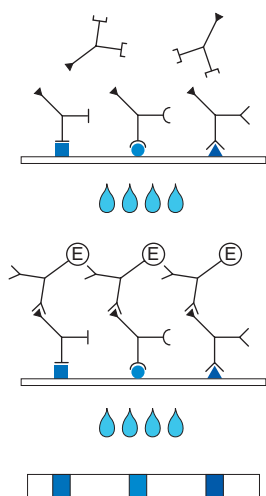
Product Advantages

- **Rekombinant antigens**, therefore
 - High sensitivity and specificity
 - Easy and clear interpretation due to easy to read bands
 - No cross reactions with *Brucella* and other pathogens
 - No interference caused by LPS
- **Use of recombinant YOPs: All infections with *Yersinia* pathogenic for man are detected**
- Easy test procedure; automation possible
- **Safe evaluation due to strip specific controls**
- Separate detection of IgG, IgM and IgA antibodies - can provide helpful evidence for the clarification of reactive arthritis and other symptoms
- CE label: The *recomLine Yersinia* tests meet the high standard of the EC directive 98/79/EC on in vitro diagnostic medical devices

Yersinia Outer Membrane Proteins (YOPs)

| Antigen | Size [kDa] |
|---------|------------|
| YOP M | 58 |
| YOP H | 46 |
| V-AG | 38 |
| YOP D | 35 |
| YOP N | 34 |
| YOP E | 25 |

Test Principle and Procedure



1st. Incubation: A test strip loaded with Yersinia antigens is incubated with diluted serum or plasma in a dish for **1 h**.

Wash 3 times

2nd. Incubation: Peroxidase conjugated anti-human antibodies (IgG, IgM or IgA specific) are added. Incubate for **45 min**.

Wash 3 times

3rd. Incubation: **5 - 10 minutes** after addition of the coloring solution, insoluble colored bands develop at the sites on the test strips occupied by antibodies.

Evaluation

Blood donor sera tested with *recomLine* Yersinia (n = 100).

| | IgG | IgA* | IgM* |
|------------------|-----|------|------|
| positive | 26 | 9 | 0 |
| equivocal | 0 | 0 | 0 |
| negative | 74 | 91 | 100 |

* The blood donor sera displayed mainly weak reactivities in the IgA and IgM testing.

Comparison of the Widal agglutination test with *recomWell* Yersinia and *recomLine* Yersinia. Widal results are displayed as titers. *recomWell* Yersinia results are displayed as Units. Blue fields = positive results and beige fields = negative results.

| Serum | Widal Serotype | | | recomWell Yersinia | | | recomLine Yersinia | | |
|-------|----------------|--------|-----------|--------------------|-----|-----|--------------------|----------|----------|
| | Y. ent. | | Y. pseud. | IgG | IgA | IgM | IgG | IgA | IgM |
| | O3 | O9 | Typ1 | | | | | | |
| 1 | 1:1600 | <1:100 | <1:100 | 215 | 171 | 296 | positive | positive | positive |
| 2 | 1:800 | <1:100 | <1:100 | 118 | 112 | 296 | positive | positive | positive |
| 3 | 1:200 | <1:100 | <1:100 | 215 | 171 | 296 | positive | positive | positive |
| 4 | 1:800 | <1:100 | <1:100 | 215 | 171 | 296 | positive | positive | positive |
| 5 | 1:400 | <1:100 | <1:100 | 215 | 171 | 155 | positive | positive | positive |
| 6 | <1:100 | 1:100 | <1:100 | 215 | 64 | 68 | positive | positive | positive |
| 7 | <1:100 | <1:100 | <1:100 | 218 | 55 | 12 | positive | positive | negative |
| 8 | <1:100 | <1:100 | <1:100 | 218 | 117 | 16 | positive | positive | negative |
| 9 | <1:100 | <1:100 | <1:100 | 198 | 110 | 10 | positive | positive | negative |
| 10 | <1:100 | <1:100 | <1:100 | 147 | 150 | 10 | positive | positive | negative |
| 11 | <1:100 | <1:100 | <1:100 | 218 | 74 | 13 | positive | positive | negative |
| 12 | <1:100 | <1:100 | <1:100 | 218 | 47 | 11 | positive | positive | negative |
| 13 | <1:100 | <1:100 | <1:100 | 218 | 50 | 11 | positive | positive | negative |
| 14 | <1:100 | <1:100 | <1:100 | 254 | 74 | 10 | positive | positive | negative |
| 15 | <1:100 | <1:100 | <1:100 | 33 | 8 | 11 | positive | negative | negative |
| 16 | <1:100 | <1:100 | <1:100 | 94 | 7 | 11 | positive | negative | negative |
| 17 | <1:100 | 1:200 | <1:100 | 85 | 13 | 19 | positive | negative | negative |
| 18 | <1:100 | <1:100 | <1:100 | 51 | 6 | 13 | positive | negative | negative |
| 19 | <1:100 | <1:100 | <1:100 | 6 | 4 | 8 | negative | negative | negative |
| 20 | <1:100 | <1:100 | <1:100 | 6 | 7 | 12 | negative | negative | negative |

Storage and Shelf Life

At 4 °C 18 months from the time of production

Commercial Product

Article No. 4672 **recomLine Yersinia IgG**
Reagents for 50 determinations

Article No. 4673 **recomLine Yersinia IgA [IgM]***
Reagents for 50 determinations

Article No. 10075 Line assay Anti human conjugate IgM
(peroxidase) 100 µl

* [] optional available
as additional reagent