**recomWell Yersinia IgG**
**recomWell Yersinia IgA**
**recomWell Yersinia IgM**

Enzyme immunoassay with recombinant antigens for the detection of IgG, IgA or IgM antibodies against Yersinia enterocolitica and Yersinia 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.

**recomWell Yersinia** tests are quantitative in vitro tests for the detection and safe identification of antibodies against plasmid-coded virulence proteins. The antigens (YOPs - Yersinia outer membrane proteins) used in these tests are expressed only by strains of Yersinia that are pathogenic for human beings.

The use of recombinant antigens guarantees optimum representation of the immunodominant YOPs in the absence of cross-reacting proteins. As a second major advantage, the clarification of Yersinia induced reactive arthritis is supported by separate detection of antibody classes IgG, IgA and IgM.

### Test Principle and Procedure

Indirect sandwich test.
Recombinant antigens are bound to the solid phase.

1st Incubation: Add patient samples diluted 1:101 (sample: 10 µl of serum or plasma), incubate for 1 h at 37 °C. Wash 4 times

2nd Incubation: Add peroxidase conjugated anti-human IgG or IgM antibodies (conjugate), incubate for 30 min at 37 °C. Wash 4 times

Color reaction: Add ready-to-use TMB solution and incubate for 30 min at room temperature. Stop the substrate reaction with H₃PO₄ and measure the extinction at 450 nm.
### Evaluation

#### Distribution of reactivity

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Findings</th>
<th>IgG</th>
<th>IgA</th>
<th>IgM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yersinia sera with positive pre-findings (Suspect of Yersinia induced reactive arthritis)</td>
<td>29</td>
<td>positive</td>
<td>100 %</td>
<td>72 %</td>
<td>21 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>equivocal</td>
<td>0 %</td>
<td>7 %</td>
<td>7 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>negative</td>
<td>0 %</td>
<td>21 %</td>
<td>72 %</td>
</tr>
<tr>
<td>Blood donor sera</td>
<td>217</td>
<td>positive</td>
<td>32 %</td>
<td>9 %</td>
<td>1 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>equivocal</td>
<td>3 %</td>
<td>2 %</td>
<td>1 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>negative</td>
<td>65 %</td>
<td>89 %</td>
<td>98 %</td>
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<tr>
<td></td>
<td></td>
<td>prevalence</td>
<td>35 %</td>
<td>11 %</td>
<td>2 %</td>
</tr>
</tbody>
</table>

### Storage and Shelf Life

At 4 °C 18 months from the date of production

### Commercial Product

- **Article No. 4604**  
**recomWell Yersinia IgG**  
Reagents for 96 determinations (Mikrotiter plates: 12 x 8 wells)

- **Article No. 4606**  
**recomWell Yersinia IgA**  
Reagents for 96 determinations (Mikrotiter plates: 12 x 8 wells)

- **Article No. 4605**  
**recomWell Yersinia IgM**  
Reagents for 96 determinations (Mikrotiter plates: 12 x 8 wells)