



SERION ELISA *classic*

# Campylobacter jejuni IgA/IgG/IgM

## Intended Use

- Qualitative and quantitative detection of human IgA, IgG and IgM antibodies in serum or plasma directed against *Campylobacter jejuni*
- Differentiation of acute and past infections in cases of gastrointestinal diseases and reactive arthritis

## Diagnostic Efficiency

The SERION ELISA *classic* Campylobacter jejuni IgA, IgG and IgM tests were validated by the analysis of 91 serum samples from patients with either acute gastrointestinal infections and laboratory confirmed or suspected Guillain-Barré-Syndrome in comparison to the results obtained with a complement fixation test (CFT).

Product	Sensitivity	Specificity
SERION ELISA <i>classic</i> Campylobacter jejuni IgA/IgG/IgM	>99 %	83.9 %

## Precision

### SERION ELISA *classic* Campylobacter jejuni IgA

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.351	7.4	0.361	6.5
Serum 2	0.524	6.3	0.522	4.6
Serum 3	1.318	3.9	1.317	4.8

## SERION ELISA *classic* Campylobacter jejuni IgG

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.541	3.7	0.493	6.9
Serum 2	0.628	3.0	0.640	6.0
Serum 3	1.219	2.4	1.225	5.2

### Pathogen

Campylobacter is a bacteria consisting of more than 20 species occurring worldwide. In particular, *Campylobacter jejuni* is associated with human diseases in industrialized countries. The main reservoirs of the pathogen are warmblooded domestic and wild animals.

### Disease

Human Campylobacteriosis is primarily a foodborne disease. Insufficiently heated, contaminated poultry and poultry products (eggs excluded) are the main sources of infection. A clinical manifestation of *Campylobacter jejuni* infections is acute enteritis which is accompanied by fever (38 - 40 °C), headache, myalgia, arthralgia and weariness. Normally infections are self limiting, but 5 to 10 % of untreated patients develop relapses.

## SERION ELISA *classic* Campylobacter jejuni IgM

Sample	Mean value (OD)	Intraassay CV (%) (n=20)	Mean value (OD)	Interassay CV (%) (n=10)
Serum 1	0.166	3.3	0.154	9.3
Serum 2	0.175	5.6	0.169	8.3
Serum 3	1.086	4.3	1.194	5.1

Rare complications of infection are Guillain-Barré-Syndrome, an inflammatory disease of the peripheral nervous system, and reactive arthritis.

### Diagnosis

*Campylobacter jejuni* infections are usually detected by pathogen isolations from stool and blood samples. In recent years, serological diagnosis of *Campylobacter jejuni* infections has developed into an important routine diagnostic procedure. To analyze the etiology of severe complications, such as reactive arthritis and GBS, reliable serological ELISA tests are required, since these diseases usually develop up to three weeks after *Campylobacter jejuni* infection. In such cases, stool culture testing is not suitable since isolation attempts are usually unsuccessful at this stage.

## Highlights

- Use of a preparation of the outer membrane of *Campylobacter jejuni* incl. 45 kDa OMP
- Sensitive IgM detection for the demonstration of acute primary infections, particularly in children
- Specific IgA and IgG detection by exclusion of background seroprevalence in order to support the demonstration of acute and chronic infections, particularly in the differential diagnosis of enteritis and complications such as reactive arthritis or *Guillain-Barré-Syndrome* (GBS)
- Quantification of antibody activities for disease stage monitoring and therapy control

Product	Order No.
SERION ELISA <i>classic</i> Campylobacter jejuni IgA	ESR139A
SERION ELISA <i>classic</i> Campylobacter jejuni IgG	ESR139G
SERION ELISA <i>classic</i> Campylobacter jejuni IgM	ESR139M

### SERION ELISA control

Please visit our website for more information.

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