

# Dating the infection?

LIAISON® IgG, IgM and Avidity are the solution

# Confidence in Your Results

## Toxoplasmosis serology: diagnostic approach

Toxoplasma infection can cause severe damage in cases of congenitally acquired infection. The diagnosis of primary infection in pregnant women and the timing of infection are of particular importance. Serology is the only method to determine if the mother has been infected by Toxoplasma gondii. Early diagnosis of primary infection requires a highly sensitive and quantitative assay for IgG and IgM antibodies, to discriminate between chronic and recent infections. The presence of Toxoplasma-specific IgM in serum is an indicator of recent infection, but

often IgM persist and may be detected for years after the occurrence of the infection. Measurement of IgG avidity may improve the accuracy of the serological diagnosis dating the infection more precisely. A high Avidity Index excludes recent toxoplasma infection within the last four months. Therefore the detection of a high IgG Avidity Index during the first trimester excludes an acute infection during pregnancy for many women who, otherwise, on the basis of a positive specific IgG and IgM result, would have been identified as having a recent infection.

## Total automation in avidity testing

Typical situation of routine screening is the presence of chronic Toxoplasmosis sera containing both specific IgG and long-lasting IgM antibodies. IgG avidity testing is capable of positively excluding recent infections. 135 specimens tested from selected populations with different clinical conditions provided the following results:

Clinical condition	N° samples	LIAISON® Toxo IgG avidity II	
Primary Toxoplasma infection acquired in the 4 months prior to sample collection	60	High	0
		Moderate	1
		Low	59
Past Toxoplasma infection with long-lasting IgM	24	High	22
		Moderate	0
		Low	2
Past Toxoplasma infection	51	High	51
		Moderate	0
		Low	0
<b>Total n° samples</b>	<b>135</b>		

No high avidity results were observed among the population with primary Toxoplasma infection.

## Usefulness of Avidity Testing: exclusion of recent infections

The detection of a high IgG Avidity Index may allow the exclusion of recent infection occurred in the previous 4 months. A low Avidity Index indicates a probable recent infection but cannot exclude an older one, since a low Avidity Index can still be detected over 4 months after infection.

## A unique selection of raw materials

\*DiaSorin manufactures the Toxoplasma trophozoites with monolayer cell-culture technology to ensure the presence of the immunodominant antigens (p30, p22, GRA6, GRA7, ROP2)

## Ease of use

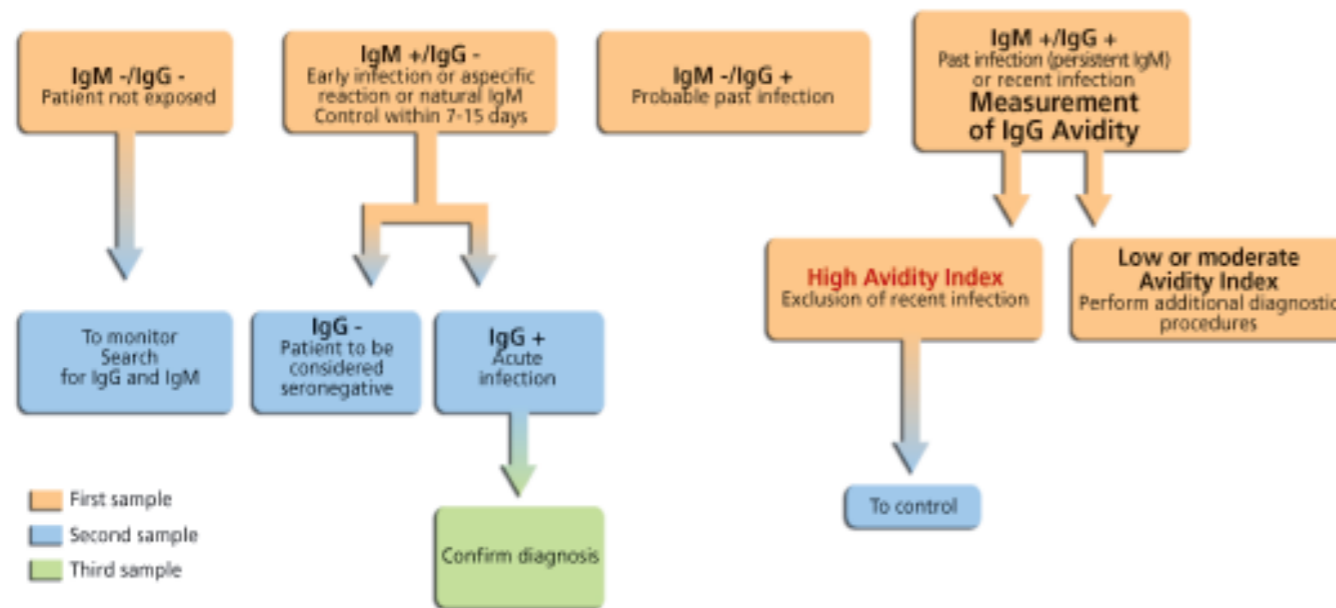
- \* Full automation makes your daily routine convenient and easy
- \* Barcoded samples and reagents
- \* Two-point recalibration stable for 2-4 weeks
- \* Continuous reagent inventory
- \* Calibrators included

\* Quantitative determinations of IgG (IU/mL standardized against II WHO Ref. Prep.) and IgM (AU/mL)

## Flexibility enables quick results

- \* High throughput:
  - \* IgG/IgM: 90 results/hour
  - \* IgG Avidity: 30 results/hour
- \* Stored master curve
- \* Time to first result:
  - \* IgG/IgM: 35 min
  - \* IgG Avidity: 50 min
- \* No complicated pre-dilution steps

### Interpretation algorithm\* in pregnant women



\*According to dr L. Paris Groupe Hospitalier Pitie - Salpêtrière Paris France

# Toxoplasma gondii