BIOMÉRIEUX

VIDAS® ToRC PANEL

IgG - IgM - AVIDITY
3 markers for optimal safety

RBG CMVM CMVG

RBM TXG TXM

TXGA TXC

Did you know?

- IgG is widely used to determine the presence of specific immunity.
  Unlike false negative results, false positives or IgG over-sensitivity can have severe consequences.

- If IgM appear earlier than IgG, they also disappear earlier.
  This makes IgM an early and sensitive marker of acute infection.
  The first quality of an IgM test is sensitivity, but IgM can persist for over 6 months and sometimes even for years.

- Serology is not always clear-cut. Reactivation, reinfection, polyclonal stimulation, residual IgM, non-specific IgM can lead to unnecessary treatment, amniocentesis, abortion and distress.[1,2]
  The Solution = Avidity
  Right from the first sample collection, avidity measurement excludes most recent infections.

Serodiagnosis of ToRC **in pregnant women**
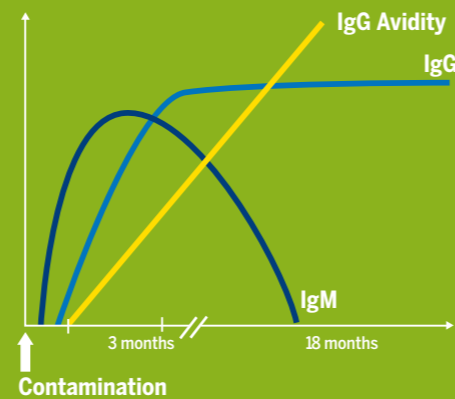
3 infections

Toxoplasmosis, Rubella and Cytomegalovirus can lead to severe sequelae for future newborns.

	Fq of C.I.*
CMV	1 newborn / 100 to 1,000
Toxo	1 newborn / 1,000 to 10,000
Rub	1 newborn / 10,000 to 100,000

* Frequency of congenital infection industrialized countries [3-5]

3 markers

Diagnosis of ToRC is based on serology and comprises 3 markers: IgG, IgM, IgG Avidity.

IgG Avidity
IgG
IgM
3 months — 18 months
Contamination

3 test steps

Step 1	Step 2	Step 3
Immunity status	Suspected infection	Exclusion of recent infection
IgG detection	IgM detection	Avidity measurement

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With VIDAS® solution:

- Easy-to-use platform
- Choose mother and child safety
- The 3 markers answer all diagnostic guidelines for pregnancy follow-up

(a) 13 % and 24 % of the samples with the EIA 2 and EIA 3 tests respectively were not confirmed IgM positive (less residual IgM detection).
(b) 85 % of the samples presented a high avidity index, and recent infection was excluded.

A — Immunity status **ToRC IgG**

Case study: Evaluation of a Toxo IgG assay [6]

sample collection	IgG EIA #1
1st	positive

This patient would be considered as already being immune.
4 weeks later:

sample collection	IgG EIA #1	IgG EIA #2	IgM ISAGA
1st	positive	negative	negative
2nd	positive	positive	positive

In fact, this patient is seroconverting. False positive or over-sensitivity of the EIA 1 test? Without the second sample collection, the EIA 1 test (IgG detected before IgM - rare) would have wrongly indicated this patient as being immunized, contrary to the EIA 2 test.

The true value of an IgG test is specificity for increased diagnostic accuracy.

B — Suspected infection **ToRC IgM**

Case study: Comparison of CMV IgM tests [7]

sample collection	IgM EIA #1, #3 and #4	IgM EIA #2	IgG
1st	positive or equivocal	negative	positive

This patient would be suspected as being recently infected.
In this example, the EIA 2 test appears to be less sensitive than the other tests (EIA 1, 3 and 4).

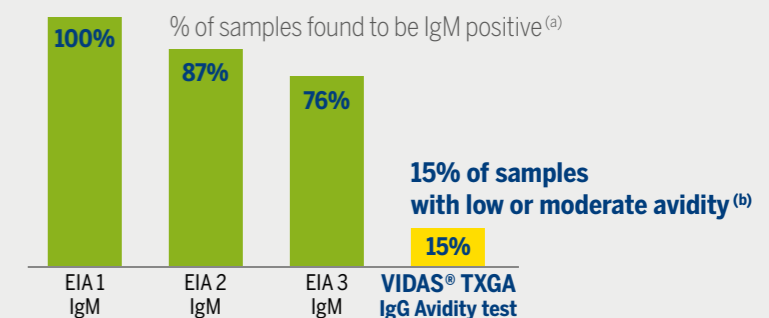| sample collection	IgG Avidity measurement
1st	high avidity

High avidity excludes recent infection and therefore enables IgM to be interpreted as residual. In this example, the EIA 2 test avoided unnecessary patient distress and additional sample collections. The EIA 2 test detects less residual IgM.

The added value of an IgM test is specificity for less unnecessary distress.

C — Exclusion of recent infection **IgG Avidity**

Case study: Comparison of Toxo IgM tests with a Toxo Avidity test on a population initially found to be positive with the EIA 1 IgM test [8]

% of samples found to be IgM positive [a]

- EIA 1 IgM: 100%
- EIA 2 IgM: 87%
- EIA 3 IgM: 76%
- VIDAS® TXGA IgG Avidity test: 15%

15% of samples with low or moderate avidity [b]

The true value of an Avidity test is exclusion of recent infection for less unnecessary investigations.

VIDAS®
ToRC PANEL

	VIDAS® ToRC	
VIDAS TOXO IgM	30202	60 tests
VIDAS TOXO IgG II	30210	60 tests
VIDAS TOXO IgG Avidity	30222	30 tests
VIDAS TOXO Competition	30211	60 tests
VIDAS CMV IgM	30205	30 tests
VIDAS CMV IgG	30204	60 tests
VIDAS CMV IgG Avidity II	413557	30 tests
VIDAS RUB IgM	30214	30 tests
VIDAS RUB IgG II	30221	60 tests

Other complementary tests

Toxo ISAGA	75361	192 tests
Toxo ISAGA IgA	79322	48 tests

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7. Fassotte R., Jost I. **Détection des IgM anti-cmv par technique Meia (AxSym, Abbot) à l'aide d'une nouvelle trousse de réactif à base d'antigène recombinant ; comparaison de trois autres méthodes de routine (VIDAS, Enzygnost, IMx).** *Immunoanal Biol Spéc*. 1999;14:260-63.
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