



# Cysticercosis Ag

## ELISA

REF 650501 (96 tests)

REF 650505 (480 tests)

REF 650510 (960 tests)

The **Cysticercosis Antigen (Ag) ELISA** manufactured by Advanced Practical Diagnostics BV is an Enzyme Immunoassay for the qualitative determination of viable metacestodes (cysticerci) of *Taenia* spp. in human and animal serum samples.

The assay has been developed in collaboration with the **Institute for Tropical Medicine in Antwerp**, Belgium.

*Taenia solium* cysticercosis is an infection of humans and pigs with the metacestode larvae (cysticercus) of *Taenia solium*. Circulating antigen detection in serum is an important diagnostic method that indicates the presence of viable parasites. The monoclonal antibodies (IgG isotype) used in this assay are directed against excretory secretory products (ESP) of viable *T. saginata* cysticerci<sup>(1)(3)</sup>. The glycoprotein antigens detected by these monoclonal antibodies are present on the tegument and in the excretory-secretory-products of metacestodes<sup>(4)</sup>.

The assay only demonstrates the presence of viable cysticerci, it does not detect degenerated or calcified cysticerci. In this respect, unlike antibody detection, measurement of circulating antigen levels allows differentiation of cysticercosis cases with viable parasites, with antigen levels correlating to the number and size of lesions. It can as such also provide a tool for serological monitoring of antiparasitic therapy in human or animals: antigen levels drop rapidly after successful anthelmintic treatment<sup>(2)</sup>.

QUALITATIVE ASSAY

TWO YEAR SHELF LIFE

SENSITIVE: can detect 1 viable cyst in certain conditions

INCUBATION TIME: sample preparation < 30' + assay 45'

AVAILABLE FORMAT: 96T - 480T - 960T



## Porcine cysticercosis

The assay is genus specific, not species specific. The assay does not allow the differentiation between infections of different *Taenia* species in pigs (*T. solium*, *T. hydatigena*, *T. asiatica*). This should be taken in consideration when using the Cysticercosis Ag ELISA for diagnosis of *T. solium* in countries where *T. hydatigena* and *T. asiatica* are common in pigs (e.g. SE Asia)<sup>(3)</sup>.

In experimentally infected pigs, circulating antigens were first detected between 2 and 6 weeks post infection and remained present generally throughout an observation period of 6 months, even in pigs carrying only five to eight living cysts. The minimum number of living cysts, that could be detected using the Cysticercosis Ag ELISA, was one<sup>(3)(6)</sup>.

## Human cysticercosis

Because *T. solium* is the only *Taenia* spp. causing cysticercosis in man, the test is specific. No cross-reactions were observed with sera from patients with parasitologically and/or serologically confirmed infections with *Schistosoma* (n = 3), hydatid cysts (n = 10), *Ascaris* (n = 38), *Trichuris* (n = 38), filaria (n = 3), *Entamoeba* (n = 3), *Plasmodium* (n = 7) and *Trypanosoma* (n = 8)<sup>(5)</sup>.

The sensitivity of the assay decreases when the number of viable cysts is low; infections with one viable cyst are often not detectable.

Antigen levels are generally higher in extraparenchymal neurocysticercosis (NCC) (particularly subarachnoid NCC) than in intraparenchymal NCC; therefore, high antigen levels should lead one to suspect the presence of extraparenchymal NCC<sup>(7)</sup>.

## Strengths

- Based on monoclonal antibodies B158C11A10/B60H8A4 cited frequently in literature
- CE marked ELISA test IVD
- Also available as Research Use Only (RUO) kit
- Usable for human and animal testing
- Can be used for CSF testing
- Sensitive, up to 1 living cyst can be detected in certain conditions
- Automatable: can be used on open ELISA automates

**For more information, please visit our website at [www.apdiagroup.com](http://www.apdiagroup.com) or contact us at [admin@apdia.be](mailto:admin@apdia.be)**

## References

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