



B O R D I E R
A F F I N I T Y
P R O D U C T S

Diagnosics for parasitology and mycology

Serology by ELISA (96 tests) :

# 9200	Toxocariasis
# 9300	Alveolar Echinococcosis Screening
# 9310	Alveolar Echinococcosis Follow-up
# 9350	Cystic Echinococcosis
# 9400	Filariasis
# 9450	Strongyloidiasis
# 9500	Leishmaniasis
# 9550	Amebiasis
# 9600	Schistosomiasis
# 9650	Fascioliasis
# 9700	Cysticercosis
# 9750	Trichinellosis
# 6100	Aspergillosis

Features and advantages:

- Easy to use ELISA format, robust and easily automated
- Everything required is provided in the kits, including cut-off control serum
- Breakaway wells for true cost efficiency
- High sensitivity and specificity
- Unique assays from an established, high quality manufacturer
- Quality control data, from all lots, published on the web
- CE marked

Bordier Affinity Products SA
Chatanerie 2, CH-1023 Crissier, Switzerland
Tel. +41 21 633 31 67, Fax. +41 21 633 31 78

www.bordier.ch

Coprology by IFAT (2 x 50 tests) :

# 8100	Microsporidiosis (2 species)
--------	-------------------------------------

9200 *Toxocara canis*

Disease Toxocariasis, visceral *larva migrans*

Distribution and patients Worldwide. Pet owners, children (contaminated playgrounds), patients with pruritus or hypereosinophilia.

Information, performance Sensitivity: 91% with 78 sera of patients with clinically suspected toxocariasis.
Specificity: 96% with 500 sera of Swiss blood donors and 98% with 500 sera of Swiss hospitalized children (not for toxocariasis).
Specificity: 86% with 199 sera of patients with other parasitic infections.

Remark To be tested in case of persistent hypereosinophilia. Approximately 25 % of the Central European population have had contact with *Toxocara* larvae. In rare cases a larva established in the retina may be mistaken for a retinoblastoma (Ocular toxocariasis, ocular *larva migrans*).



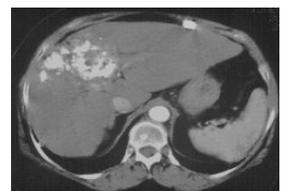
9300 *Echinococcus multilocularis* Screening

Disease Alveolar echinococcosis

Distribution and patients Northern hemisphere: Europe, Asia, N. America.
Rural populations, consumers of wild plants or vegetables from the kitchen garden. Contact with infected animals.

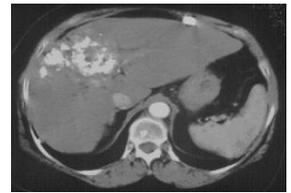
Information, performance Mix of Em18 recombinant antigen and Em2 affinity purified antigen.
Sensitivity: 83% with 151 sera of patients suffering from alveolar echinococcosis.
Specificity: 98% with 267 sera of Swiss blood donors.
Specificity: 84% with 63 sera of patients suffering from cystic echinococcosis, 93% with 46 sera of patients with other parasitic infections.

Remark Screening and differential diagnosis of alveolar echinococcosis and cystic echinococcosis. Western blot and medical imaging are useful as confirmation methods.



9310 *Echinococcus multilocularis* Follow-up

Disease	Alveolar echinococcosis
Distribution and patients	Northern hemisphere: Europe, Asia, N. America. Rural populations, consumers of wild plants or vegetables from the kitchen garden. Contact with infected animals.
Information, performance	Elaborated with Em18 recombinant antigen alone. Decrease or negativation of anti-recEm18 serum antibody levels indicates a complete surgical resection of the parasite lesion or an inactivation of the parasite by drug treatment.
Remark	Serological follow-up of patients suffering from alveolar echinococcosis.



9350 *Echinococcus granulosus*

Disease	Cystic echinococcosis and alveolar echinococcosis
Distribution and patients	Worldwide, in particular in the Mediterranean area, Asia. Regions with agricultural based economies. People with previous contact with infected dogs, contaminated food or polluted drinking water.
Information, performance	Sensitivity: 96% with 78 sera of patients suffering from cystic echinococcosis and 89% with 19 sera of patients suffering from alveolar echinococcosis. Specificity: 97% with 119 sera of Swiss blood donors. Specificity: 82% with 74 sera of patients with other parasitic infections.
Remark	Screening of both echinococcosis. A specific identification of the parasite can be performed subsequently with a western blot and the <i>Echinococcus multilocularis</i> ELISA (Ref. 9300). If required, both ELISAs may be performed in parallel.



9400 *Acanthocheilonema viteae*

Disease	Filariasis
Distribution and patients	Tropical regions: each filaria species has its own geographical distribution. Travellers and immigrants.
Information, performance	Elaborated with an antigen extracted from an animal parasite (<i>A. viteae</i>). The patient's antibodies react with epitopes which are common to <i>A. viteae</i> and the infecting parasite. Sensitivity: 95% with 22 sera of patients suffering from filariasis (patients with microfilaremia and/or with positive serology with other techniques and epidemiological and clinical background of filariasis). Specificity: 98% with 180 sera of Swiss blood donors. Specificity: 69% with 75 sera of patients with other parasitic infections.
Remark	Consider filariasis in case of hypereosinophilia and after a stay in an endemic region. Confirm the diagnosis with a microscopic investigation of the blood or an antigen-detection assay.



9450 *Strongyloides ratti* / *S. stercoralis*

Disease	Strongyloidiasis
Distribution and patients	Worldwide in hot countries. Locally in Europe. Travellers. Immunodepressed individuals, HIV-positive, transplanted or undergoing chemo or corticotherapy.
Information, performance	Elaborated with an antigen extracted from an animal parasite (<i>Strongyloides ratti</i>) which is closely related to the human pathogen (<i>S. stercoralis</i>). Sensitivity: 90% with 59 sera of patients with larvae of <i>Strongyloides stercoralis</i> . Specificity: 96% with 150 sera of Swiss blood donors. Specificity: 77% with 89 sera of patients with other parasitic infections.
Remark	Strongyloidiasis is possible in cases of chronic diarrhoea, hypereosinophilia and a stay (even long ago) in an endemic area. Serology is useful to confirm the efficiency of the therapy and to complement the microscopic examination of faeces.



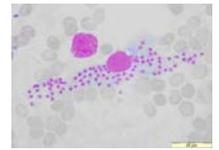
9500 *Leishmania infantum* / *L. donovani*

Disease Visceral leishmaniasis, Kala-azar

Distribution and patients Mediterranean area, Middle East, India, China, E. Africa and Latin America. Immigrants. In Europe: co-infection with HIV.

Information, performance Sensitivity: 93% with 29 sera of immunocompetent patients (HIV-) suffering from visceral leishmaniasis due to *L. infantum* and 67% with 21 sera HIV-*Leishmania* co-infected patients. Specificity: 96% with 150 sera of Swiss blood donors. Specificity: 100% with 99 sera of patients with other parasitic infections. Test may be used without modification on dogs.

Remark Confirm diagnosis with a western blot, quantitative PCR or *in vitro* cultivation of the parasite. Contact with the parasite may not always lead to the associated disease symptoms.



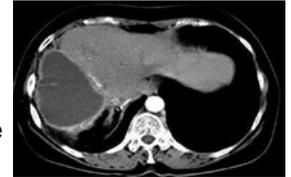
9550 *Entamoeba histolytica*

Disease Extra-intestinal amebiasis, mainly amoebic liver abscess

Distribution and patients Tropical areas. A stay in endemic areas, fever, abdominal pain and mass in the liver with ultrasound.

Information, performance Sensitivity: 100% with 52 sera of patients suffering from visceral amoebiasis. Specificity: 96% with 99 sera of Swiss blood donors. Specificity: 89% with 71 sera from amoebiasis suspected patients, but where this disease has been certainly ruled out. Specificity: 80% with 40 sera of patients with other parasitic infections.

Remark The 100% negative predictive value allows exclusion of extra-intestinal amebiasis



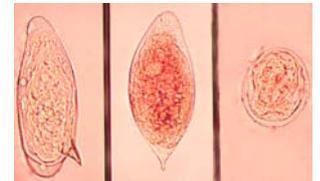
9600 *Schistosoma mansoni* / *S. haematobium*

Disease Intestinal and urinary schistosomiasis

Distribution and patients Very common infection in tropical countries. 200 million infected people worldwide. Immigrants, travellers who have been in contaminated water in endemic areas.

Information, performance Sensitivity: 84% with 80 sera from patients with parasitologically proven schistosomiasis (34/37 *Schistosoma mansoni*, 26/27 *Schistosoma haematobium* and 2/3 mixed infections) or positive specific serology on western blot (13/13). Specificity: 99% with 122 sera of Swiss blood donors. Specificity: 94% with 141 sera of patients with other parasitic infections.

Remark Confirm the diagnosis by looking for eggs in the stool or urine. Adult parasite can survive for more than twenty years in the patient's organs. Antibodies may persist even after effective treatment.



9650 *Fasciola hepatica*

Disease Fascioliasis

Distribution and patients Worldwide. Watercress consumers.

Information, performance Elaborated with SAP-2 recombinant antigen from *Fasciola hepatica*. Sensitivity: 77% with 13 sera of patients suffering from fascioliasis. Specificity: 99% with 99 sera of Swiss blood donors. Specificity: 98% with 99 sera from patients of an infectiology unit (Swiss). Specificity: 97% with 30 sera of patients with other parasitic infections.

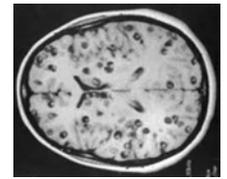
Remark Confirm diagnosis by a microscopic search for parasite eggs in faeces.



9700 *Taenia solium*

Disease Cysticercosis, mainly neurocysticercosis

Distribution and patients Developing countries. Infection occurs by accidentally ingesting eggs found in the feces of a person who has an intestinal tapeworm (taeniasis).



Information, performance Sensitivity: 98% with 45 sera of patients suffering from subarachnoid neurocysticercosis. 71% with 45 sera of patients suffering from neurocysticercosis with only one viable cyst. 40% with 45 sera of patients suffering from neurocysticercosis with only calcified cyst.
Specificity: 98% with 99 sera of Swiss blood donors.
Specificity: 96% with 99 sera from patients of an infectiology unit (Swiss).
Specificity: 13% with 45 sera of patients suffering from cystic echinococcosis. 71% with 45 patients suffering from hymenolepiasis.

9750 *Trichinella spiralis*

Disease Trichinellosis

Distribution and patients Worldwide. Infection occurs by ingesting raw or undercooked meat from infected animals.



Information, performance Sensitivity: 95% with 55 sera of patients suffering from trichinellosis.
Specificity: 98% with 149 sera of Swiss blood donors.
Specificity: 98% with 100 sera from patients of an infectiology unit (Swiss).
Specificity: 90% with 62 sera from trichinellosis suspected patients, but where this disease has been certainly ruled out.
Specificity: 93% with 44 sera of patients with other parasitic infections

6100 *Aspergillus fumigatus*

Disease Chronic pulmonary aspergillosis (CPA), ABPA

Distribution and patients Worldwide.
Asthma, cystic fibrosis, chronic obstructive pulmonary disease...



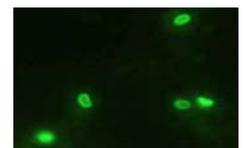
Information, performance Association of a somatic/metabolic soluble antigen with 2 recombinants antigens (chymotrypsin and mitogillin).
Sensitivity: 97% with 230 sera from 147 patients suffering from various aspergillosis (104 CPA, 17 aspergillomas, and 43 ABPA).
Specificity: 90.3% with 206 sera from 205 patients with respiratory symptoms in whom an *Aspergillus*-related disease had been ruled out.
Specificity: 97% with 36 sera from 24 patients suffering from non-aspergillus respiratory diseases (candidosis, tuberculosis, pneumocystosis and cryptococcosis).

Remark The screening and follow up of patients at risk for aspergillosis is conveniently made by ELISA. A confirmation method is recommended in case of positive results.

8100 *Microsporidies (Enterocytozoon bienersi, Eucephalitozoon intestinalis)*

Disease Microsporidiosis (chronic diarrhoea)

Distribution and patients Worldwide.
Immunodepressed patients.



Information, performance Direct visualisation in faeces by indirect immunofluorescence with two specific monoclonal antibodies.
Sensitivity: near 100%.
Specificity: better than the traditional staining methods (Weber).

Remark The identification of the species of microsporidia allows for specific therapy