

# DRG ELISA

# Fasciola

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# Fasciola IgG (human)

## Superspecific ELISA for detection of Fasciola IgG antibodies

### Advantages of the DRG Fasciola IgG ELISA

- Low sample volume: 10  $\mu$ L Serum
- Detection of Fasciola hepatica and Fasciola gigantica IgG antibodies
- Easy to perform
- Overall incubation time: 1h 45 min
- High Sensitivity: 100%
- High Specificity: 100%
- No cross reaction with other parasites, e.g. Trichinella or Giardia
- This ELISA could be performed manually or with an open automated system



### Essential steps in DRG Fasciola IgG ELISA

1. During incubation Fasciola-specific IgG antibodies from the serum are bound to the immobilized antigen
2. After a washing step to remove unbound material, horseradish peroxidase conjugated anti-human IgG antibodies is added
3. Unbound conjugate is washed away
4. Substrate (TMB) is added for chromogenesis
5. Stop solution is added to terminate color development
6. Absorbance at 450 nm is read using an ELISA microtiter plate reader



### Fasciola IgG ELISA

#### EIA-4503

- Sample volume: 10  $\mu$ L Serum  
Inc. time: 60' 37° C, 30'/15' r.t.  
Sensitivity: 100%  
Specificity: 100%

## **Fasciola Diagnosis: The DRG Advantage**

Fasciolosis is caused by trematodes belonging to the genus *Fasciola* (*F. hepatica* and *F. gigantica*).

In the past, infection was limited to specific and typical geographical areas, but now widespread throughout the world. With human cases being increasingly reported from Europe, the Americas and Oceania (where only *F. hepatica* is transmitted) and from Africa and Asia (where the two species overlap).

As a consequence, human fasciolosis should be considered as a zoonosis of major global and regional importance.

Globally, the estimated number of human infections ranges from 2.4 million to 17 million.

*Fasciola hepatica* causes liver rot in sheep and cattle. Snails are the first intermediate host and encystation then occurs on aquatic vegetation. Humans usually acquire infection by eating contaminated freshwater plants, but can occasionally be infected by drinking unboiled contaminated water.



## **Diagnosis:**

In generally made via microscopy by identifying characteristic eggs in fecal samples or bile specimen. (However egg production does not begin until approx. 3 months after infection.)

Serological testing becomes positive during the early phase of migration through the liver and is therefore useful in diagnosing early symptoms before the appearance of eggs in the feces.

## **Clinical aspects:**

Adult worms usually reside in the bile duct, where they can live for many years and produce eggs that pass out with bile into the feces.

The early phase of migration of parasites through the liver can cause liver parenchymal destruction and be associated with fever, pain and hepatomegaly (6-12 weeks following ingestion).

## **DRG Fasciola IgG ELISA**

meets the claim for the early detection of Fasciolosis with the highest sensitivity (100%) and specificity (100%), no cross reaction was verifiable detected to other parasites, like: *Opisthorchis felineus*, *Toxocara canis*, *Schistosoma mansoni*, *Echinococcus granulosus/multilocularis*, *Trichinella spiralis*, *Strongyloides stercoralis*, *Ascaris lumbricoides*, *Giardia lamblia*. DRG Fasciola IgG ELISA is also applicable for the follow-up of treatment.

# ELISAS Infectious Diseases

## Parasites

Ascaris lumbricoides  
Cryptosporidium  
Echinococcus  
Entamoeba histolical  
Fasciola  
Giardia lamblia  
Leishmania  
Malaria  
Schistosoma mansoni  
Strongyloides  
Taenia solium  
Toxocara canis  
Toxoplasma gondii  
Trichinella spiralis  
Trypanosoma cruzi  
(Chagas Disease)

## Bacteria

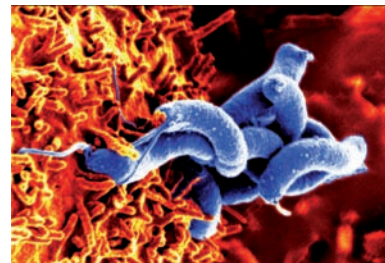
Bordetella pertussis  
Borrelia burdorferi (Lyme)  
Brucella  
Chlamydia  
Clostridium difficile toxin  
Corynebacterium diphtheriae toxin  
E.coli Verotoxin  
Gardnerella vaginalis  
Helicobacter pylori  
Legionella pneumophila  
Leptospira  
Mycoplasma hominis  
Mycoplasma pneumoniae  
Mycobacterium tuberculosis (TB)  
Tetanus (Clostridium tetani) toxin  
Treponema pallidum (Syphilis)  
Ureaplasma urealyticum  
Yersinia enterocolitica

## Virus

Adenovirus  
Astrovirus  
Cytomegalovirus (CMV)  
Dengue Virus  
Epstein-Barr Virus (EBV)  
Flavivirus (West Nile)  
Hepatitis Virus  
Herpes Simplex Virus (HSV)  
Influenza A and B Virus  
Measles Virus  
Mumps Virus  
Parainfluenza 1/2/3 Virus  
Parvovirus B19  
Rotavirus  
Respiratory Syncytial Virus (RSV)  
Rubella Virus  
Tick-borne encephalitis Virus  
Varicella Zoster Virus  
Chikungunya  
HPV IgG

## Fungi

Aspergillus fumigatus  
Candida albicans



## DRG Diagnostics

DRG Instruments GmbH, mit Sitz in Marburg, wurde im Jahre 1973 als Niederlassung von DRG International, Inc. USA gegründet. Heute widmet sich die Firma hauptsächlich der Entwicklung, Produktion und dem weltweiten Vertrieb von neuen und innovativen ELISA Testsystemen. Die DRG ist nach ISO 9001 und ISO 13485 zertifiziert.

## DRG Diagnostics

DRG Instruments GmbH, founded in 1973 by Dr. Geacintov, subsidiary of DRG Intl. Inc., USA, is a diagnostics manufacturer of ELISAS. The DRG Group operates through a network of DRG subsidiaries in Germany, Poland, Russia, China and the Czech Republic and through distributors worldwide.



## ELISAS that perform

DRG entwickelt, produziert und vertreibt diagnostische ELISA Testkits für den Gebrauch in Klinik und Forschung. Die Erfahrung unseres Produktions- und Managementteams garantiert hochqualitative Produkte mit einem guten Preis-Leistungs-Verhältnis und einem exzellenten Kundenservice. DRG Kits bieten beste Qualität, hervorragende Performance und Reproduzierbarkeit sowie einfache Handhabung: Mikrotiterstrips einzeln brechbar, gebrauchsfertige Reagenzien, kurze Inkubationszeiten und lange Haltbarkeit. Unsere ELISA Kits sind erhältlich in verschiedenen Formaten und damit anpassungsfähig an die Bedürfnisse des Kunden und der Märkte.

## ELISAS that perform

DRG develops and manufactures diagnostic ELISA test kits for use in clinical and research laboratories. The experience of our production and management team guarantees to provide high quality products, competitive prices and excellent customer service.

DRG works to EN ISO 9001:2008 and EN ISO 13485:2003 + AC:2007 and ISO 13485:2003 under CMDCAS, certified by TÜV Rheinland LGA Products GmbH, an indication of our commitment to customer service, quality control and improved health care.



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