ANTIBODY CHARACTERISTICS

Name: Anti-Cercariae

Target Species: Schistosoma mansoni

Status: Available

Description: Cercariae are larval stages of the human parasite S. mansoni. This polyclonal antibody against cercariae is being used to characterize the major antigens of cercariae to identify potential vaccine candidates against S. mansoni.

Type	Location	Purification	Tested Applications		Available
☐ Monoclonal	☒ Nuclear	☒ None	☒ Histology	☐ Flow	☒ Crude Ab
☒ Polyclonal	☒ Cytoplasm	☐ Am. Sulfate	☐ Cytology	☒ ELISA	☐ Purified Ab
☐ Engineered	☒ Membrane	☐ Chromato.	☒ Precipitation	☐ Therapy	☒ Immunogen
	☒ Secreted	☐ Affinity	☒ Blotting	☐ Other	☐ Hybridoma
		☐ Other			☐ Controls

Polyclonal Antibody against the Cercariae Stage of *S. mansoni*

Technology Reference
CX044

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Fields
Parasitology
Immunology
Vaccines

Key Words
S. mansoni
Schistosomiasis
Diagnostic test

Stage of Development
Purified antibody and immunogen available

Patent Status

Status
Seeking Licensing or Research Partner

Applications
- Diagnostic testing
- Vaccine development
- Quality control
- Research

The Invention

This invention consists of a pan-specific rabbit polyclonal antibody that has been prepared against the cercariae stage of the human parasite *S. mansoni.*

Applications

Antibodies against cercariae are used in precipitation, blotting, fluorescence and ELISA immunoassays for the detection of infections by *S. mansoni.* This antibody has also been used for the identification and characterization of antigens in the development of vaccines against *S. mansoni.*

Prior Art/Background

S. mansoni is one of three species of helminth parasite responsible for schistosomiasis, a debilitating liver disease that is endemic to many tropical regions. The free-swimming cercariae form of this human parasite penetrates the skin and migrates to the portal circulatory system of the liver where it matures. The mature parasite migrates to the intestine where it releases eggs into the feces. These eggs develop into the "miracidium" form that can infect certain species of snails that serve as intermediate hosts. Sporocysts produced by infected snails complete the cycle by maturing into cercariae. This parasite embolizes in hepatic venules with the formation of granulomas and portal fibrosis that lead to internal bleeding, hepatosplenomegaly and hepatic insufficiency.

Benefits

- A pan-specific polyclonal antibody that has demonstrated utility in the detection and isolation of *S. mansoni* antigens for use in vaccine development.

UIC The University of Illinois at Chicago	Polyclonal Antibody against the Cercariae Stage of *S. mansoni*
References	None
K. Ramaswamy	Associate Professor & Director of Tropical Diseases Research Department of Biomedical Sciences College of Medicine University of Illinois at Chicago – Rockford Campus Research Focus • Functional proteomics • Parasite Immunology • Allergy Reviewer for Grant Agencies and Journals • NIH vaccine study section • Journal of Biological Chemistry • Journal of Immunology • Trends in Parasitology • Trends in Molecular Medicine