



## ANTIBODY CHARACTERISTICS

**Name:** Anti-G-Binding Factor

**Target Species:** Schistosoma mansoni

**Status:** Available

**Description:** The function of G-binding factor is not currently known. This antibody and the corresponding protein and gene are used as internal controls for evaluating other recombinant proteins cloned from the human parasite, *S. mansoni*.

<u>Type</u>	<u>Location</u>	<u>Purification</u>	<u>Tested Applications</u>		<u>Available</u>
<input type="checkbox"/> Monoclonal	<input type="checkbox"/> Nuclear	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Histology	<input type="checkbox"/> Flow	<input checked="" type="checkbox"/> Crude Ab
<input checked="" type="checkbox"/> Polyclonal	<input type="checkbox"/> Cytoplasm	<input type="checkbox"/> Am. Sulfate	<input checked="" type="checkbox"/> Cytology	<input checked="" type="checkbox"/> ELISA	<input type="checkbox"/> Purified Ab
<input type="checkbox"/> Engineered	<input checked="" type="checkbox"/> Membrane	<input type="checkbox"/> Chromato.	<input type="checkbox"/> Precipitation	<input type="checkbox"/> Therapy	<input checked="" type="checkbox"/> Immunogen
	<input checked="" type="checkbox"/> Secreted	<input type="checkbox"/> Affinity	<input checked="" type="checkbox"/> Blotting	<input type="checkbox"/> Other	<input type="checkbox"/> Hybridoma
		<input type="checkbox"/> Other			<input type="checkbox"/> Controls



## Polyclonal Antibody against the G-Binding Factor from *S. mansoni*

### **Technology Reference** CX042

### **Contact**

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### **Inventor**

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### **Fields**

Parasitology  
Immunology  
Vaccines  
Regulation

### **Key Words**

*S. mansoni*  
Schistosomiasis  
G-Binding Proteins

### **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 rabbit polyclonal antibody is specific for the G-Binding Factor (GBF) protein of the human parasite *S. mansoni*.

### **Applications**

This antibody has been used as an internal control in immuno precipitation, blotting and ELISA assays. Given its unique function, GBF is a potential drug target against *S. mansoni* infections. The polyclonal antibodies developed against GBF can be used to characterize this drug target.

### **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.

The function of Sm-GBF in *S. mansoni* is not presently known. It is anticipated that it will have regulatory functions similar to those of other G-binding proteins.

### **Benefits**

- Binds to a protein that is a potential drug target in *S. mansoni*



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**References**

None

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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