



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## Rabbit anti-Cytochrome c antibody

<b>Catalog</b> 130-10033	<b>No:</b>	<b>Isotype:</b> Rabbit Ig G	<b>Speceis:</b> Human	<b>Accession No:</b> P08574
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### Description

Cytochrome c is a small heme protein found loosely associated with the inner membrane of the mitochondrion. It belongs to the cytochrome c family of proteins. Cytochrome c is electron carrier protein. The oxidized form of the cytochrome c heme group can accept an electron from the heme group of the cytochrome c1 subunit of cytochrome reductase. Cytochrome c then transfers this electron to the cytochrome oxidase complex, the final protein carrier in the mitochondrial electron-transport chain. Cytochrome c is suspected to be the functional complex in so called LLLT: Low-level laser therapy. In LLLT, red light and some near infra-red wavelengths penetrate tissue in order to increase cellular regeneration. Light of this wavelength appears capable of increasing activity of cytochrome c, thus increasing metabolic activity and freeing up more energy for the cells to repair the tissue.

### Applications

#### Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:20000 (at least detecting 50ng/ml)
Western Blotting			#	
Enzyme Immunoassay(EIA)			#	
Immunohistology paraffin	-		#	
Immunohistology resin	-		#	
Immunoprecipitation			#	
Flow Cytometry			#	
Neutralization			#	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

Immunogen was synthetic peptide derived from human Cytochrome c. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum by ammonium sulphate precipitation, and followed by Protein A/G affinity chromatography.

### **Binding Activity**

The antibody can specifically bind to its immunogen, and did not show any cross reactivity with unrelated antigens in ELISA. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat Cytochrome c was not tested yet.

### **Reconstitution**

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, liking Sodium Azide. *It final concentration is indicated in shipping vial.*

The antibody is stable for at least years from the data of receipt when stored at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at  $4^{\circ}\text{C}$ . **Please avoid freeze-thaw cycles.**

### **Storage**

Keep it at  $4^{\circ}\text{C}$  if intended for use within a month. Store at  $-20^{\circ}\text{C}$  if over months. **Minimize freezing and thawing when use.**

### **Related products**

1. Mouse Anti-Human CYTOCHROME C (Cat# DS-MB-03276 )
2. Custom Human Cytochrome C ELISA Kit , (Cat# ELH-CytochromeC-001)

### **Reference**

Radhakrishnan J, et.al.. (2007) Circulating levels of cytochrome c after resuscitation from cardiac arrest: a marker of mitochondrial injury and predictor of survival. Am J Physiol Heart Circ Physiol. 292(2):H767-75.

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