

Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide Mouse Monoclonal Antibody [Clone CYCS/1010 ] Catalog # AH12102

### Specification

# Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW ,1,2,3,4, <u>P99999</u> <u>54205, 437060</u> Human, Rat Mouse Monoclonal Mouse / IgG2b, kappa 15kDa KDa

# Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Additional Information

Gene ID 54205

**Other Names** Cytochrome c, CYCS, CYC

Storage

Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions

Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

# Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Protein Information

Name CYCS

Synonyms CYC

#### Function

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.

#### **Cellular Location**

Mitochondrion intermembrane space. Note=Loosely associated with the inner membrane

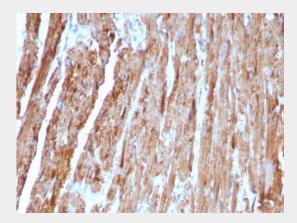


## Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Protocols

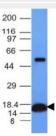
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

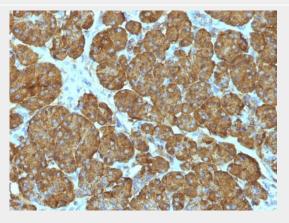
### Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Heart stained with Cytochrome C Monoclonal Antibody (CYCS/1010).



Western Blot Analysis of human Heart Lysate using Cytochrome C Monoclonal Antibody (CYCS/1010).





Formalin-fixed, paraffin-embedded human Pancreas stained with Cytochrome C Monoclonal Antibody (CYCS/1010).

## Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - Background

Cytochrome C is a well-characterized mobile electron transport protein that is essential to energy conversion in all aerobic organisms. In mammalian cells, this highly conserved protein is normally localized to the mitochondrial inter-membrane space. More recent studies have identified cytosolic cytochrome c as a factor necessary for activation of apoptosis. During apoptosis, cytochrome c is trans-located from the mitochondrial membrane to the cytosol, where it is required for activation of caspase-3 (CPP32). Overexpression of Bcl-2 has been shown to prevent the translocation of cytochrome c, thereby blocking the apoptotic process. Overexpression of Bax has been shown to induce the release of cytochrome c and to induce cell death. The release of cytochrome c from the mitochondria is thought to trigger an apoptotic cascade, whereby Apaf-1 binds to Apaf-3 (caspase-9) in a cytochrome C which includes both apocytochrome (i.e. cytochrome in the cytosol without heme attached) and holocytochrome (i.e cytochrome in the mitochondria with heme attached).

### Cytochrome C (Mitochondrial Marker) Antibody - With BSA and Azide - References

Goshorn SG, E Retzel, and R Jemmerson. Common Structural Features among Monoclonal Antibodies Binding the Same Antigenic Region of Cytochrome c. J Biol Chem 266:2134-2142 (1991).