

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

Mouse Monoclonal Antibody [Clone 7H8.2C12 + CYCS/1010 ] Catalog # AH12105

#### **Product Information**

**Application** WB, IHC, IF, FC

Primary Accession P99999

Other Accession 54205, 437060
Reactivity Human, Rat
Host Mouse
Clonality Monoclonal
Isotype Mouse / IgG's

**Clone Names** 7H8.2C12 + CYCS/1010

Calculated MW 11749

### **Additional Information**

**Gene ID** 54205

Other Names Cytochrome c, CYCS, CYC

**Application Note** WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50

**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.

#### **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

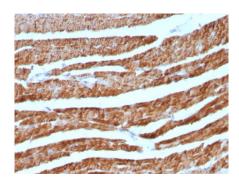
## **Background**

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-dependent manner, leading to caspase-9 cleavage of caspase-3. This MAb recognizes total 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).

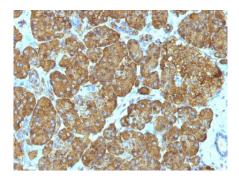
#### References

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).

## **Images**



Formalin-fixed, paraffin-embedded human Heart stained with Cytochrome C Monoclonal Antibody (7H8.2C12 + CYCS/1010).



Formalin-fixed, paraffin-embedded human Pancreas stained with Cytochrome C Monoclonal Antibody (7H8.2C12 + CYCS/1010).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.