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

Mouse Monoclonal Antibody [Clone CTC05 ]
Catalog # AH12099

## Product Information

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|---|---|
| **Application** | WB, IHC, IF, FC |
| **Primary Accession** | P99999 |
| **Other Accession** | 54205, 437060 |
| **Reactivity** | Human, Mouse, Rat, Horse, Dog |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG2b, kappa |
| **Clone Names** | CTC05 |
| **Calculated MW** | 11749 |

## Additional Information

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|---|---|
| **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

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|---|---|
| **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 |

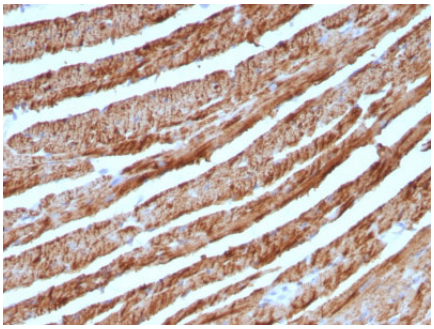
## Background

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.

## 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 (CTC05).

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