

TECHNICAL DATA SHEET**Catalog # MSA06****Cytochrome c monoclonal antibody**

Rev.3

LOT #:

COMPONENTS:	100 µg monoclonal antibody
APPLICATIONS:	Western blotting, Immunocytochemistry, In-Cell ELISA, Flow Cytometry
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	37BA11
SPECIES CROSS-REACTIVITY:	human, rat, mouse, bovine, <i>C. elegans</i>
HOST SPECIES AND ISOTYPE:	Mouse IgG _{2a} , k
IMMUNOGEN:	Cytochrome c
CONCENTRATION:	1 mg/mL in HEPES-Buffered Saline (HBS) with 0.02% azide as a preservative.
SUGGESTED WORKING CONCENTRATION:	0.25 - 1.0 µg/mL for Western blotting 0.5 - 2 µg/mL for Immunocytochemistry (heat induced antigen retrieval in 0.1 M Tris-HCl, 5% urea, pH 9.5 for 5 min at 95°C improve s signal). 4 µg/mL for In-Cell ELISA (0.4 µg/well) 1 µg/mL for Flow Cytometry
mAb PURITY:	Near homogeneity as judged by SDS-PAGE. The antibody was produced <i>in vitro</i> using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
STORAGE CONDITIONS:	Store at 4° C, do not freeze.
COUNTRY OF ORIGIN:	USA

BACKGROUND:

Cytochrome *c* is a water-soluble mitochondrial intermembrane-space protein loosely attached to the inner mitochondrial membrane and is approximately 13 kDa. It plays important roles in two processes: oxidative phosphorylation and apoptosis.

As an electron carrier in oxidative phosphorylation, cytochrome *c* shuttles four electrons (one at time) via its heme group from Complex III (cytochrome *c* reductase) to Complex IV (cytochrome *c* oxidase).

As a crucial player in apoptosis (programmed cell death), cytochrome *c* is released from the mitochondria to the cytosol where it binds to an adaptor subunit, APAF-1 in the presence of dATP, leading to activation of caspase 9. Caspase 9 triggers activation of other caspases which cleave and destroy other proteins. This results in cell death.

Note: This product is for research purposes only. It is not to be used in humans or for diagnostic purposes.

WARRANTY – MitoSciences Inc warrants that products will perform as indicated in the published Technical Data Sheet for 6 months from date of purchase when stored according to specifications and when used consistent with recommended protocols. If you experience results which materially differ from those described, send evidence of the non-performing product for replacement of the original product purchased or a credit toward any other of the company's products or services.