



Anti-Cytochrome C Monoclonal Antibody

CATALOG #:	456100
COMPONENTS:	100 µg monoclonal antibody
APPLICATIONS:	Western blotting and Immunocytochemistry
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	37BA11
SPECIES CROSS-REACTIVITY:	human, bovine, rat, mouse and <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 0.1M Tris-HCl, 5% urea, pH 9.5 for 5min at 95°C improves signal).
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.

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Related Products

<i>Product</i>	<i>Conjugate</i>	<i>Cat. No.</i>
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary Antibody Conjugates

<i>Conjugate</i>	<i>Goat anti-rabbit IgG (H+L)</i>	<i>Goat anti-mouse IgG (H+L)</i>	<i>Ex/Em*</i>	<i>Fluorescence similar to--</i>
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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