Cytochrome C Monoclonal Antibody (2B5), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Clone	2B5
Conjugate	Unconjugated
Immunogen	Rec. Human Cytochrome C
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2-7.4
Contains	no preservative
Storage conditions	4° C
RRID	AB_10598651

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	1 Publication
Immunocytochemistry (ICC/IF)	1:100	-
Flow Cytometry (Flow)	Assay-Dependent	-
ELISA (ELISA)	Assay-Dependent	1 Publication
Immunoprecipitation (IP)	Assay-Dependent	-

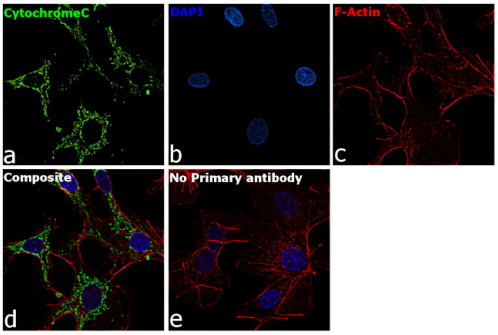
Product Specific Information

Description: Cytochrome c was identified as a component required for the crucial steps in apoptosis, caspase-3 activation and DNA fragmentation. Cytochrome c was shown to redistribute from mitochondria to cytosol during apoptosis in intact cells.

Mitochrondrial cytochrome c is a water-soluble protein of 15 kDa with a net positive charge, residing loosely attached in the mitochrondrial intermembrane space. Cytochrome c functions in the respiratory chain by interaction with redox partners. The release of cytochrome c into the cytosol leads to an activation of an apoptotic program via activation of a caspase dependent pathway. Cytochrome c achieves this goal by interaction with other cytosolic factors forming a complex (apoptosome) composed of cytochrome c, Apaf-1, dATP and Apaf-3/caspase 9. Bcl-2 on the other hand was shown to be able to prevent apoptosis by blocking the release of cytochrome c from mitochondria.

Applications Tested: ELISA, Flow Cytometry, Western Blotting.

Product Images For Cytochrome C Monoclonal Antibody (2B5), eBioscience™



Cytochrome C Antibody (BMS1037) in ICC/IF
Immunofluorescence analysis of Cytochrome C was performed using 70% confluent log phase Hep G2 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with Cytochrome C Monoclonal Antibody (2B5), eBioscience™ (Product # BMS1037) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32723), (1: 2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300 dilution). Panel d represents the merged image showing cytoplasmic (mitochondria-like) localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.

2 References

Western Blot (1)

Biomedicines

miR-210 Regulates Apoptotic Cell Death during Cellular Hypoxia and Reoxygenation in a Diametrically Opposite Manner.

"BMS1037 was used in Western Blot, ELISA to investigate the polarity of the miR-210-elicited cellular response, as miR-210 has been shown to exacerbate as well as attenuate hypoxia-driven apoptotic cell death."

Authors: Marwarha G,Røsand Ø,Scrimgeour N,Slagsvold KH,Høydal MA

Year
2021

Species
Human

Dilution
1:1000

ELISA (1)

Biomedicines

miR-210 Regulates Apoptotic Cell Death during Cellular Hypoxia and Reoxygenation in a Diametrically Opposite Manner.

"BMS1037 was used in Western Blot, ELISA to investigate the polarity of the miR-210-elicited cellular response, as miR-210 has been shown to exacerbate as well as attenuate hypoxia-driven apoptotic cell death."

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