

Alexa Fluor[®] 488 anti-Cytochrome c Antibody

Catalog# / Size	612308 / 100 µg
Clone	6H2.B4
Regulatory Status	RUO
Other Names	Cyt c
Isotype	Mouse IgG1, κ
Description	Cytochrome c is a 15 kD protein found in the mitochondrial intermembrane space with a heme-binding domain. Cytochrome c is a component of the electron transport chain; the heme group transfers electrons from cytochrome b-c1 complex to cytochrome oxidase complex. Cytochrome c initiates apoptosis by release to cytoplasm and binding Apaf-1 which activates procaspase 9. Cytochrome c interacts with the cytochrome b-c1 complex, cytochrome oxidase complex, heme, Apaf-1, and Caspase 9 proteins. The 6H2.B4 monoclonal antibody recognizes human, mouse, and rat cytochrome-c and has been shown to be useful for intracellular flow cytometric staining, Western blotting, immunoprecipitation, and immunofluorescence staining.

Product Details

Reactivity	Mouse, Rat, Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Rat cyt c-OVA
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 488 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor[®] 488 has a maximum emission of 519 nm when it is excited at 488 nm.</p> <p>Alexa Fluor[®] and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: intracellular flow cytometry ⁵ , immunofluorescence microscopy ^{3,5} , immunoprecipitation ⁴ , and immunocytochemistry ⁵ .
Application References	<ol style="list-style-type: none">1. Goshorn SC, <i>et al.</i> 1991. <i>J. Biol. Chem.</i> 266:2134.2. Jemmerson R, <i>et al.</i> 1991. <i>Eur. J. Immunol.</i> 21:143.3. Chandra D, <i>et al.</i> 2002. <i>J. Biol. Chem.</i> 277:50842. (IF)4. Semenkova L, <i>et al.</i> 2003. <i>Eur. J. Biochem.</i> 270:4388. (IP)5. Shih S-F, <i>et al.</i> 2001. <i>J. Biol. Chem.</i> 276:21870. (ICFC ICC IF)6. She P, <i>et al.</i> 2011. <i>Am J. Physiol Endocrinol Metab.</i> 301:E49. PubMed7. McGuire, KA., <i>et al.</i> 2011. <i>J. Virol</i> 85:10806. PubMed
(PubMed link indicates BioLegend citation)	

Product Citations

1. Dang EV *et al.* 2017. *Cell*. 171(5):1057-1071 . [PubMed](#)
2. Seyfried F, *et al.* 2019. *Cell Death Dis.* 10:571. [PubMed](#)
3. de Jong MRW, *et al.* 2019. *Cancers (Basel)*. 1.66875. [PubMed](#)

RRID

AB_2565240 (BioLegend Cat. No. 612308)

Antigen Details

Structure	Heme binding domain; 15 kD
Distribution	Mitochondrial intermembrane space
Function	Component of electron transport chain; heme group transfers electrons from cytochrome b-c1 complex to cytochrome oxidase complex. Initiates apoptosis by release to cytoplasm and binding Apaf-1 which activates procaspase 9
Interaction	Cytochrome b-c1 complex, cytochrome oxidase complex, heme, Apaf-1, Casp9
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Mitochondrial Function, Neuroscience, Neuroscience Cell Markers
Molecular Family	Mitochondrial Markers
Antigen References	<ol style="list-style-type: none">1. Liu X, <i>et al.</i> 1996. <i>Cell</i>. 86:147.2. Li P, <i>et al.</i> 1997. <i>Cell</i>. 91:479.3. Zhang Z, <i>et al.</i> 2003. <i>Gene</i> 312:61.4. Ferguson H, <i>et al.</i> 2003. <i>J. Biol. Chem.</i> 278:45793.
Gene ID	1355

Related Protocols

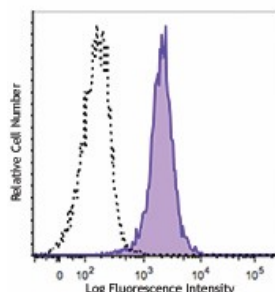
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

Biotin anti-Cytochrome c, FITC anti-Cytochrome c, Purified anti-Cytochrome c, Alexa Fluor® 488 anti-Cytochrome c, Alexa Fluor® 647 anti-Cytochrome c, GMP FITC anti-Cytochrome c

Product Data



C57BL/6 splenocytes were treated with BioLegend's Fixation Buffer and Permeabilization Wash Buffer, and then were stained with Cytochrome C (clone 6H2-B4) Alexa Fluor® 488 (filled histogram) or mouse IgG1, κ Alexa Fluor® 488 isotype control (open histogram).

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