

Biotin anti-Cytochrome c Antibody

Catalog# / Size	612303 / 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 biotin under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	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 10 ⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
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	
(PubMed link indicates BioLegend citation)	<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
Product Citations	<ol style="list-style-type: none">1. Zahno A, <i>et al.</i> 2011. <i>Biochem Pharmacol.</i> 81:432. PubMed2. Dent JR, <i>et al.</i> 2019. <i>J Appl Physiol</i> (1985). 127:1117. PubMed
RRID	AB_315776 (BioLegend Cat. No. 612303)

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

[Immunoprecipitation 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

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