

Human/Mouse/Rat Cytochrome c Antibody

Monoclonal Mouse IgG_{2A} Clone # 2.7D5 Catalog Number: MAB899

DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects native human, mouse, and rat Cytochrome c.		
Source	Monoclonal Mouse IgG _{2A} Clone # 2.7D5		
Purification	Protein A or G purified from ascites		
Immunogen	Pigeon Cytochrome c		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

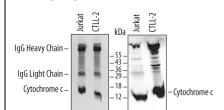
APPLICATIONS

Immunoprecipitation

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website

	Recommended Concentration	Sample
Immunoprecipitation	1 μg/10 ⁶ cells	See Below

DATA



Immunoprecipitation of Human/Mouse Cytochrome c. Cytochrome c was immunoprecipitated from lysates (5 x 106 cells) of Jurkat human acute T cell leukemia and CTLL-2 mouse cytotoxic T cell line following incubation with 5 µg Mouse Anti-Human/Mouse/Rat Cytochrome c Monoclonal Antibody (Catalog # MAB899) for 1 hour at 4 °C. Cytochrome c-antibody complexes were absorbed using Protein A Immunoprecipitin (Life Technologies). Immunoprecipitated Cytochrome c (left panel) was detected by Western blot using 0.5 µg/mL Mouse Anti-Human/Mouse/Rat Cytochrome c Monoclonal Antibody (Catalog # MAB897). For additional reference, Western blot (right panel) shows lysates of Jurkat and CTLL2 cell lines probed with 15 μg/mL Mouse Anti-Human/ Mouse/Rat Cytochrome c Monoclonal Antibody (Catalog # MAB897). View our recommended buffer recipes for immunoprecipitation.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Cytochrome c is a critical mitochondrial outer membrane-associated protein in the electron transport chain (1). Reduction and oxidation of an iron molecule (Fe3+ to Fe2+ and back) within its central heme group allow it to receive an electron from the cytochrome c1 subunit of cytochrome reductase and pass it to cytochrome a within the cytochrome oxidase complex (1). Release of cytochrome c from mitochondria occurs during initiation of apoptotic pathways, either by mechanisms that rupture or that do not rupture the mitochondrial membrane (2, 3). Once in the cytosol, cytochrome c forms a complex with procaspase 9, recruiting Apaf-1 (apoptotic protease activating factor-1) and dATP to form apoptosomes, which activate caspase and ultimately destroy the cell (2, 3). Cytochrome c is highly conserved, with 90% or greater amino acid identity among human, mouse, rat, cow and dog sequences (4). After cytochrome c translation, the initial methionine is cleaved to form the 104 amino acid mature form.

References:

- 1. Zubay, G. L., 1983, "Biochemistry", pp. 380, Addison-Wesley Pub. Co, Inc.
- 2. Liu, X. et al., 1996, Cell 86:147.
- 3. Li, P. et al., 1997, Cell 91:479.
- 4. Matsubara, H and E. L. Smith, 1963, J. Biol. Chem. 238:2732.

