

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
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

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.

Immunoprecipitation Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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