



Anti-Cytochrome c, monoclonal (Clone 6H2.B4)

Catalog Number: 905-634

Quantity: 100 µg

Introduction: Cytochrome c, a 13 kDa protein (105 amino acids), is a component of the mitochondrial respiratory chain. It catalyzes electron transfer between complexes III and IV of the respiratory chain, moving within the planar surface of the inner mitochondrial membrane¹. In addition to its role in oxidative phosphorylation, the release of cytochrome c from the mitochondrial intermembrane space to the cytosol results in apoptosis². Binding of APAF1 to cytochrome c allows APAF1 to form a ternary complex with and activate the initiator procaspase-9 in the presence of dATP. Active caspase-9 then triggers downstream effector caspases, initiating the apoptotic cascade³. Recent studies have demonstrated that cytochrome c directly microinjected in the cytoplasm of a variety of cell types is capable of initiating apoptosis on its own, while APAF-1 is needed as a co-factor in cell free extracts, thus emphasizing the crucial role of cytochrome c in apoptosis⁴. In contrast, examples of apoptosis without cytochrome c release indicate that this event may not be necessary in all apoptotic pathways⁵.

Immunogen: Rat cytochrome c

Clone: 6H2.B4

Subclass: mouse IgG₁

Purification: Protein G

Form: 1 mg/mL concentration in PBS with 0.1% sodium azide

For Research Use Only; Not for Therapeutic or Diagnostic Use.

- Stability:** Stable for 5 years when stored at -20°C
- Application:** This antibody is suitable for ELISA and immunoprecipitation applications. However, the optimal dilution must be determined by the end-user. It is not suitable for Western blotting.
- Specificity:** Recognizes the native form of rat, mouse, and human cytochrome c.
- References:**
1. D. Marzulli, *et al.*, *Arch. Biochem. Biophys.*, (1995) 319: 36-48.
 2. X. Liu, *et al.*, *Cell*, (1996) 86: 147-157.
 3. P. Li, *et al.*, *Cell*, (1997) 91: 479-489.
 4. B. Zhivotovsky, *et al.*, *Nature*, (1998) 391: 449-450.
 5. D. Tang, *et al.*, *Biochem. Biophys. Res. Comm.*, (1998) 242: 380-384.