Anti-cytochrome C Antibody [6G1]

RT1168

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF, IP, FC, IHC-P
Molecular Wt:	15kDa
Clone number:	6G1

Description: Cytochrome c is a well characterized mobile electron transport protein that is essential to energy conversion in all aerobic organisms. In mammalian cells, this highly conserved protein is normally localized to the mitochondrial intermembrane space. More recent studies have identifed cytosolic cytochrome c as a factor necessary for activation of apoptosis. During apoptosis, cytochrome c is translocated from the mitochondrial membrane to the cytosol, where it is required for activation of caspase-3 (CPP32). Overexpression of Bcl-2 has been shown to prevent the translocation of cytochrome c, thereby blocking the apoptotic process. Overexpression of Bax has been shown to induce the release of cytochrome c and to induce cell death. The release of cytochrome c from the mitochondria is thought to trigger an apoptotic cascade, whereby Apaf-1 binds to Apaf-3 (caspase-9) in a cytochrome c-dependent manner, leading to caspase-9 cleavage of caspase-3.

Immunogen: peptide

Positive control: HL-60, K-562, PC-3, uman pancreas tissue.

Subcellular location: Mitochondrion intermembrane space

Database links: SwissProt: P99999 Human

Recommended Dilutions:

WB	1:500-1:2,000
IP	1-2 μg per 100-500 μg of total protein(1 ml of cell lysate)
IF	1:50-500
IHC-P	1:50-500
FC	1 μg per 1 x 106 cells

Storage Buffer: 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Storage Instruction: Store at +4℃

Purity: Protein A affinity purified.

Images

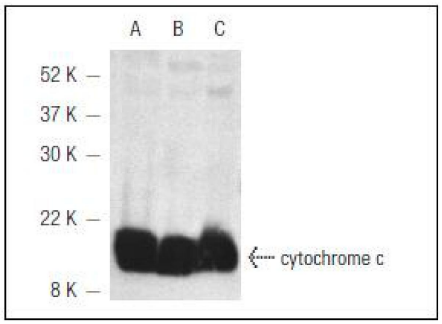

Fig1: A.Western blot Western blot analysis of cytochrome c expression in HL-60 (A), K-562 (B) and PC-3 (C) whole cell lysates.

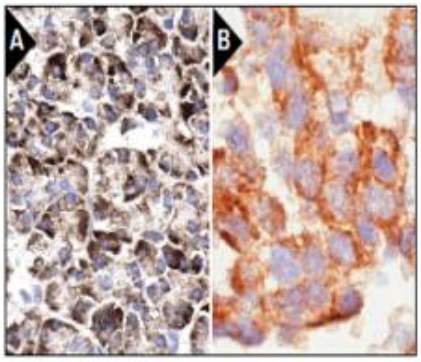

Fig2: Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human pancreas tumor showing cytoplasmic staining (B).

Background References

1. Dam, A.D., et al. 2012. Elevated skeletal muscle apoptotic signaling following glutathione depletion. Apoptosis 17: 48-60.
2. Hu, W., et al. 2012. Proapoptotic protein Smac mediates apoptosis in cisplatin-resistant ovarian cancer cells when treated with the anti-tumor agent AT101. J. Biol. Chem. 287: 68-80.