cytochrome c (7H8): sc-13560

BACKGROUND

Cytochrome c is a well characterized mobile electron transport protein 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 identified 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.

CHROMOSOMAL LOCATION

Genetic locus: CYCS (human) mapping to 7p15.3; Cycs (mouse) mapping to 6 B2.3, Cyct (mouse) mapping to 2 C3.

SOURCE

cytochrome c (7H8) is a mouse monoclonal antibody raised against full length denatured cytochrome c of human origin.

PRODUCT

Each vial contains 200 μg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

cytochrome c (7H8) is recommended for detection of cytochrome c of mouse, rat, human, equine and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

Suitable for use as control antibody for cytochrome c siRNA (h): sc-29292, cytochrome c-siRNA (m): sc-29293, cytochrome c shRNA Plasmid (h): sc-29292-SH, cytochrome c-shRNA Plasmid (m): sc-29293-SH, cytochrome c-shRNA (h) Lentiviral Particles: sc-29292-V and cytochrome c-shRNA (m) Lentiviral Particles: sc-29293-V.

Molecular Weight of cytochrome c: 15 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.