

# Cytochrome c Mouse Monoclonal Antibody (7H8.2C12 + CYCS/1010)

## Product 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 inter-membrane space. More recent studies have identified cytosolic cytochrome c as a factor necessary for activation of apoptosis. During apoptosis, cytochrome c is trans-located 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. This MAb recognizes total cytochrome C which includes both apocytochrome (i.e. cytochrome in the cytosol without heme attached) and holo-cytochrome (i.e cytochrome in the mitochondria with heme attached).

### Product attributes

<b>Antibody number</b>	#1265
<b>Antibody reactivity (target)</b>	Cytochrome c
<b>Antibody type</b>	Primary
<b>Host species</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone</b>	7H8.2C12 + CYCS/1010
<b>Isotype</b>	IgG2b, kappa + IgG2b, kappa
<b>Molecular weight</b>	15 kDa
<b>Synonyms</b>	CYC; CYCS; HCS; THC4
<b>Human gene symbol</b>	CYCS
<b>Entrez gene ID</b>	54205
<b>SwissProt</b>	P99999
<b>Unigene</b>	437060
<b>Immunogen</b>	Synthetic peptides corresponding to amino acid 1-80, 81-104 and 66-104 of pigeon cytochrome c (7H8.2C12); Recombinant full-length human CYCS protein (CYCS/1010)
<b>Verified antibody applications</b>	Flow (intracellular) (verified), IHC (FFPE) (verified), WB (verified)
<b>Antibody target cellular localization</b>	Mitochondria
<b>Species reactivity</b>	Human, Rat.
<b>Antibody application notes</b>	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistochemistry (formalin-fixed): 0.25-0.5 ug/mL for 30 minutes at RT, Flow cytometry: 0.5-1 ug/million cells, Immunofluorescence: 0.5-1 ug/mL, Western Blot 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes, Optimal dilution for a specific application should be determined by user
<b>Positive control</b>	K-562, HL-60, Jurkat, NIH3T3 or PC-3 cells. Liver or Cardiac muscle.
<b>Shipping condition</b>	Room temperature
<b>Storage Conditions</b>	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
<b>Regulatory status</b>	For research use only (RUO)
<b>Antibody/conjugate formulation</b>	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
<b>Shelf life</b>	Guaranteed for at least 24 months from date of receipt when stored as recommended
<b>Antibody research areas</b>	Apoptosis

This datasheet was generated on July 22, 2024 at 02:33:36 AM. Visit product page to check for updated information before use. Product link: <https://biotium.com/product/cytochrome-c-mouse-monoclonal-antibody-7h8-2c12-cycs-1010/>