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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 holocytochrome (i.e cytochrome in the mitochondria with heme attached). **Catalog number key for antibody number 1265, Anti-Cytochrome c (7H8.2C12 CYCS/1010)**

Product attributes

Antibody number	#1265
Antibody reactivity (target)	Cytochrome c
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	7H8.2C12 + CYCS/1010
Isotype	IgG2b, kappa
Molecular weight of antigen	15 kDa
Synonyms	CYC; CYCS; HCS; THC4
Human gene symbol	CYCS
Entrez gene ID	54205
SwissProt	P99999
Unigene	437060
Immunogen	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)
Verified antibody applications	Flow (intracellular) (verified), IHC (FFPE) (verified), WB (verified)
Antibody target cellular localization	Mitochondria
Species reactivity	Human, Rat
Antibody application notes	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
Positive control	K-562, HL-60, Jurkat, NIH3T3 or PC-3 cells. Liver or Cardiac muscle.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	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
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Antibody research areas	Apoptosis

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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