

# Cytochrome c Apoptosis WB Antibody Cocktail ab110415

[9 References](#) [1 Image](#)

### Overview

<b>Product name</b>	Cytochrome c Apoptosis WB Antibody Cocktail
<b>Assay type</b>	Quantitative
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Product overview</b>	The permeabilization of mitochondrial outer membrane and the subsequent release of cytochrome c and other apoptogenic proteins from mitochondrial intermembrane space into the cytoplasm is considered a hallmark of many apoptotic pathways. Therefore assaying these proteins in mitochondrial and cytoplasmic fractions is of prime interest for many researchers.

ab 110415 (MSA12) is a Western blot antibody cocktail that allows for the detection of cytochrome c in cytoplasmic and mitochondria-containing fractions for determining the proportion of released cytochrome c from mitochondria to the cytoplasm from apoptosis. The kit includes antibodies against a cytoplasmic protein marker, glyceraldehyde-3-phosphodehydrogenase (GAPDH), and 2 mitochondrial markers, pyruvate dehydrogenase subunit E1-alpha (a matrix marker), and ATP synthase subunit alpha (an inner membrane marker). This set of control markers allows for the monitoring and/or optimization of the permeabilization conditions.

#### Cocktail Antibodies:

##### Mouse anti Cyt. c monoclonal:

Amount: 50 µg  
Working concentration: 1 µg/ml

##### Mouse anti GAPDH monclonal:

Amount: 5ug  
Working concentration: 0.1 µg/ml

##### Mouse anti PDH-E1-alpha monoclonal:

Amount: 100ug  
Working concentration: 2 µg/ml

##### Mouse anti C-V-alpha monoclonal:

Amount: 25ug

Working concentration: 0.5 µg/ml

Notes	This product was previously called ApoTrack™ Cytochrome c Apoptosis WB Antibody Cocktail
	<b>Other apoptosis assays</b>
	For more apoptosis assays, review the <a href="#">apoptosis assay and apoptosis marker guide</a> .
Tested applications	Suitable for: WB

## Properties

**Storage instructions** Please refer to protocols.

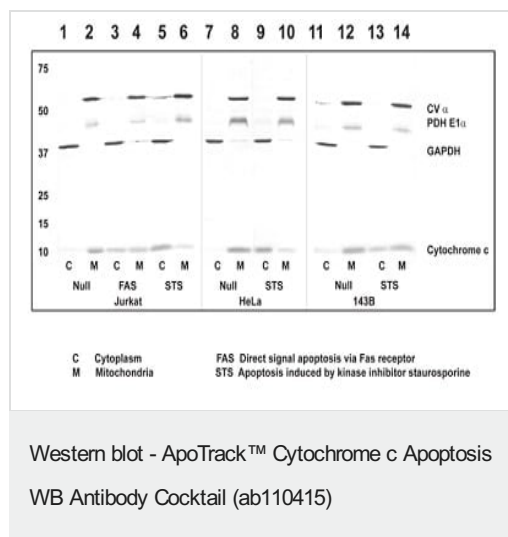
Components	180 µg
HeLa Lysate Control	1 x 50µg
Pre-mixed Solution of 4 monoclonal Antibodies	1 x 180µg

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab110415 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 3.6 µg/ml. The antibody cocktail (0.9 mg/ml) should be diluted 250x to a final working concentration of 3.6 µg/ml for Western blotting.

## Images



In this experiment, apoptosis was induced in Jurkat and 143B osteosarcoma cells by FAS and also by treatment with staurosporine (HeLa cells were also treated, but only with STS). Mitochondrial and cytoplasmic fractions were isolated (using kit Cell Fractionation Kit [ab109719](#)/MS861) and probed using ab110415 (MSA12). As is clear from the gels, cytochrome c has translocated partially in FAS-induced cells and STS-treated osteosarcoma cells, and almost completely in STS-treated Jurkat and HeLa cells. The three control targets allow for verification of the "cleanness" of the cell fractionation.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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