


## Product datasheet

# Anti-Cytochrome C antibody ab90529

★★★★★ [5 Abreviews](#) [114 References](#) [4 Images](#)

### Overview

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<b>Product name</b>	Anti-Cytochrome C antibody
<b>Description</b>	Rabbit polyclonal to Cytochrome C
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Sheep, Rabbit, Horse, Cow, Pig, Non human primates 
<b>Immunogen</b>	Synthetic peptide corresponding to Human Cytochrome C aa 50 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab100818</a> )
<b>Positive control</b>	This antibody gave a positive signal in the following lysates: HeLa Whole Cell; HepG2 Whole Cell; MCF7 Whole Cell; HEK293 Whole Cell; Human Testis Tissue; Human Liver Tissue; Mouse Heart Tissue; Rat Heart Tissue. IHC-P: Human skeletal muscle FFPE tissue sections.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab90529 in the following tested applications.

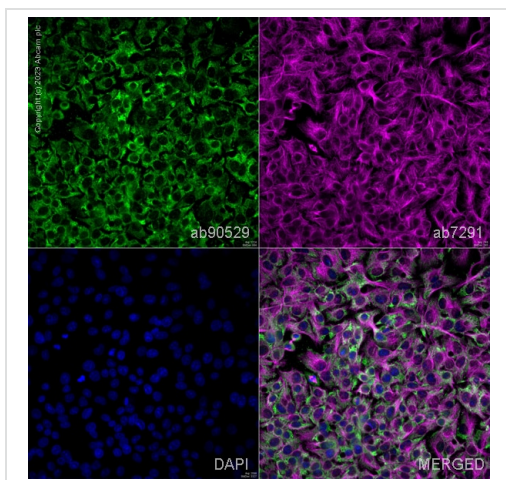
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P	★★★★★ (2)	Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★☆ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 15 kDa (predicted molecular weight: 12 kDa).

## Target

<b>Function</b>	<p>Electron carrier protein. The oxidized form of the cytochrome c heme group can accept an electron from the heme group of the cytochrome c1 subunit of cytochrome reductase. Cytochrome c then transfers this electron to the cytochrome oxidase complex, the final protein carrier in the mitochondrial electron-transport chain.</p> <p>Plays a role in apoptosis. Suppression of the anti-apoptotic members or activation of the pro-apoptotic members of the Bcl-2 family leads to altered mitochondrial membrane permeability resulting in release of cytochrome c into the cytosol. Binding of cytochrome c to Apaf-1 triggers the activation of caspase-9, which then accelerates apoptosis by activating other caspases.</p>
<b>Involvement in disease</b>	<p>Defects in CYCS are the cause of thrombocytopenia type 4 (THC4) [MIM:612004]; also known as autosomal dominant thrombocytopenia type 4. Thrombocytopenia is the presence of relatively few platelets in blood. THC4 is a non-syndromic form of thrombocytopenia. Clinical manifestations of thrombocytopenia are absent or mild. THC4 may be caused by dysregulated platelet formation.</p>
<b>Sequence similarities</b>	<p>Belongs to the cytochrome c family.</p>
<b>Post-translational modifications</b>	<p>Binds 1 heme group per subunit.</p>
<b>Cellular localization</b>	<p>Mitochondrion matrix.</p>

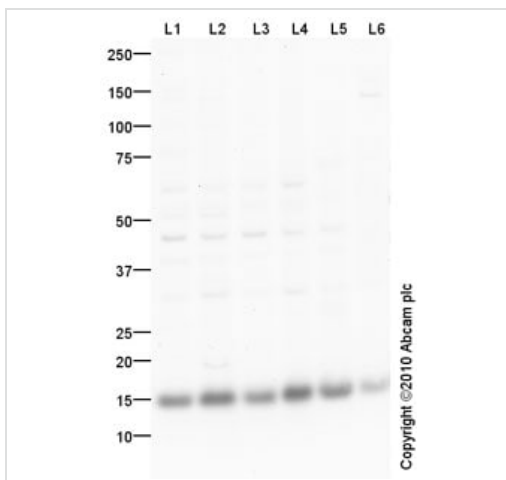
## Images



Immunocytochemistry - Anti-Cytochrome C antibody (ab90529)

ab90529 staining Cytochrome C in HepG2 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab90529 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Cytochrome C antibody (ab90529)

**All lanes** : Anti-Cytochrome C antibody (ab90529) at 1 µg/ml

**Lane 1** : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2** : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

**Lane 3** : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

**Lane 4** : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate

**Lane 5** : Human testis tissue lysate - total protein (**ab30257**)

**Lane 6** : Human liver tissue lysate - total protein (**ab29889**)

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 12 kDa

**Observed band size:** 15 kDa

**Exposure time:** 30 minutes

**All lanes :** Anti-Cytochrome C antibody (ab90529) at 1 µg/ml

**Lane 1 :** Heart (Mouse) Tissue Lysate

**Lane 2 :** Heart (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 12 kDa

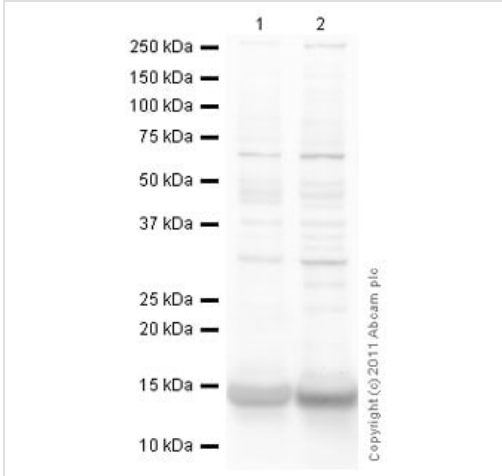
**Observed band size:** 14 kDa

**Additional bands at:** 30 kDa, 65 kDa. We are unsure as to the identity of these extra bands.

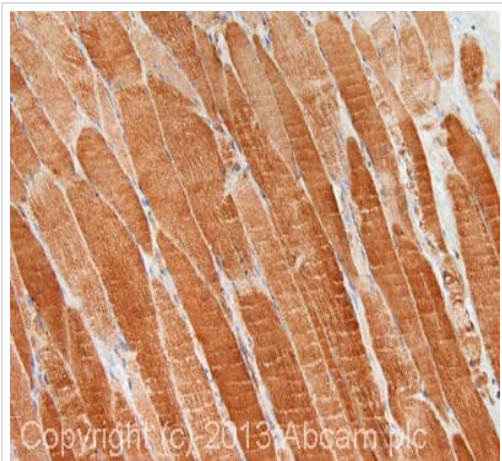
**Exposure time:** 4 minutes

IHC image of Cytochrome C staining in human skeletal muscle formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab90529, 1 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-Cytochrome C antibody (ab90529)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytochrome C antibody (ab90529)

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

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