abcam

Product datasheet

Anti-Cytochrome C antibody [EP1326-80-5] ab76107

Recombinant RabMAb

** * * * 4 Abreviews 7 References 5 Images

Overview

Product name Anti-Cytochrome C antibody [EP1326-80-5]

Description Rabbit monoclonal [EP1326-80-5] to Cytochrome C

Host species Rabbit

Tested applications Suitable for: WB. IHC-P. mIHC

Unsuitable for: Flow Cyt

Species reactivity Reacts with: Mouse, Human, African green monkey

Predicted to work with: Rat

Immunogen Synthetic peptide within Human Cytochrome C (N terminal). The exact sequence is proprietary.

Positive control WB: HeLa, COS and L929 cell lysates. IHC-P: human kidney tissue. mlHC: Human parathyroid

gland tissue.

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form

Storage instructions Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

Purity Protein A purified

Clonality Monoclonal

Clone number EP1326-80-5

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab76107 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 | ★★★★★ (2) | 1/500. Predicted molecular weight: 12 kDa. |
| IHC-P | | 1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |
| mIHC | | Use at an assay dependent concentration. |

Application notes Is unsuitable for Flow Cyt.

Target

Function

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.

Plays a role in apoptosis. Suppression of the anti-apoptotic members or activation of the proapoptotic 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.

Involvement in disease

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.

Sequence similarities

Belongs to the cytochrome c family.

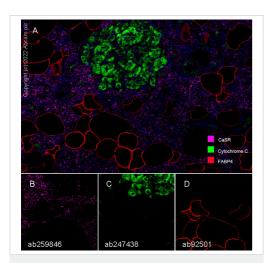
Post-translational modifications

Binds 1 heme group per subunit.

Cellular localization

Mitochondrion matrix.

Images



Multiplex immunohistochemistry - Anti-Cytochrome C antibody [EP1326-80-5] (ab76107)

Fluorescence multiplex immunohistochemical analysis of the Human parathyroid gland (Formalin/PFA-fixed paraffin-embedded sections).

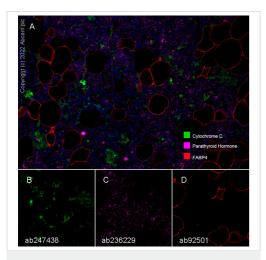
Panel A: merged staining of anti-CaSR (<u>ab259846</u>, magenta; Opal™690), anti-Cytochrome C (<u>ab247438</u>, green; Opal™520) and anti-FABP4 (<u>ab92501</u>, red; Opal™570) on human parathyroid gland. Panel B: anti-CaSR stained on parathyroid chief cells. Panel C: anti-Cytochrome C stained on parathyroid oxyphil cells. Panel D: anti-FABP4 stained on adipocytes. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of <u>ab259846</u> at 1/5000 dilution (0.103 μ g/ml), <u>ab247438</u> at 1/5000 dilution (0.195 μ g/ml), and <u>ab92501</u> at 1/10000 dilution (0.047 μ g/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems $BOND^{\circledR} RX \ instrument \ with \ an \ Opal^{\intercal\intercal} \ 4-color \ kit. \ lmage \ acquisition$ was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.

This data was developed using <u>ab247438</u>, the same antibody clone in a different buffer formulation.



Multiplex immunohistochemistry - Anti-Cytochrome C antibody [EP1326-80-5] (ab76107)

Fluorescence multiplex immunohistochemical analysis of the human parathyroid gland (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-Parathyroid Hormone (ab236229, magenta; Opal™690), anti-Cytochrome C (ab247438, green; Opal™520) and anti-FABP4 (ab92501, red; Opal™570) on human parathyroid gland. Panel B: anti-Cytochrome C stained on parathyroid oxyphil cells. Panel C: anti-Parathyroid Hormone stained on parathyroid chief cells. Panel D: anti-FABP4 stained on adipocytes. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of $\underline{ab236229}$ at 1/200 dilution (5.065 µg/ml) for 10 mins, then $\underline{ab247438}$ at 1/5000 dilution (0.195 µg/ml) and $\underline{ab92501}$ at 1/10000 dilution (0.047 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

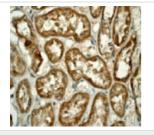
The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument with an Opal[™] 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins. DAPI (blue) was used as a nuclear counter stain.

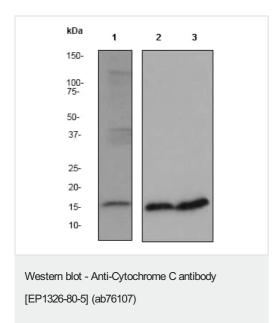
This data was developed using <u>ab247438</u>, the same antibody clone in a different buffer formulation.

ab76107 at 1/100 dilution staining Cytochrome C in human kidney by Immunohistochemistry using paraffin-embedded tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytochrome C antibody [EP1326-80-5] (ab76107)



All lanes : Anti-Cytochrome C antibody [EP1326-80-5] (ab76107) at 1/200 dilution

Lane 1 : HeLa cell lysate Lane 2 : COS cell lysate Lane 3 : L929 cell lysate

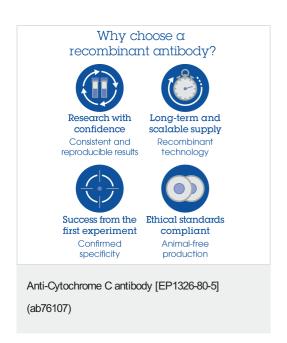
Lysates/proteins at 10 µg per lane.

Secondary

Lanes 1-2: Goat anti-rabbit HRP at 1/2000 dilution

Lane 3: goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 12 kDa
Observed band size: 15 kDa



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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors