abcam

Product datasheet

# Anti-Complex I Immunocapture antibody [18G12BC2] ab109798

**16 References** 4 图像

## 概述

| | |
|---|---|
| **产品名称** | Anti-Complex I Immunocapture抗体[18G12BC2] |
| **描述** | 小鼠单克隆抗体[18G12BC2] to Complex I Immunocapture |
| **宿主** | Mouse |
| **经测试应用** | **适用于:** ICC/IF, Flow Cyt, IP |
| **种属反应性** | **与反应:** Mouse, Rat, Cow, Human |
| **免疫原** | Full length protein. This information is proprietary to Abcam and/or its suppliers. |
| **阳性对照** | Cow heart tissue lysate - mitochondrial extract (**ab110338**) can be used as a positive control in WB. fibroblasts, HL-60 cells, tissue mitochondria |
| **常规说明** | This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**.<br><br>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.<br><br>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&As<br><br>Product was previously marketed under the MitoSciences sub-brand. |

## 性能

| | |
|---|---|
| **形式** | Liquid |
| **存放说明** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **存储溶液** | pH: 7.5<br>Preservative: 0.02% Sodium azide<br>Constituent: 99% HEPES buffered saline |
| **纯度** | IgG fraction |
| **纯化说明** | Near homogeneity as judged by SDS-PAGE. The antibody was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation. |
| **克隆** | 单克隆 |

| | |
|---|---|
| **克隆编号** | 18G12BC2 |
| **同种型** | IgG2b |
| **轻链类型** | kappa |

## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用ab109798于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

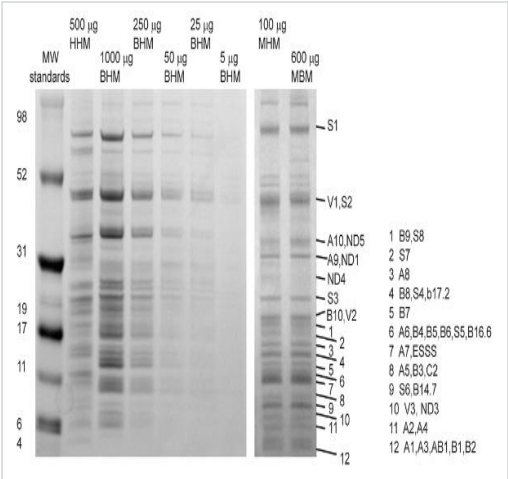
| 应用 | Ab评论 | 说明 |
|---|---|---|
| **ICC/IF** | | Use at an assay dependent concentration. |
| **Flow Cyt** | | Use at an assay dependent concentration. |
| **IP** | | Use a concentration of 0.1 - 1 mg/ml.<br>100 µg mAb can capture at least 25 µg complex I from 1 mg solubilized bovine heart mitochondria. |

## 靶标

**相关性**

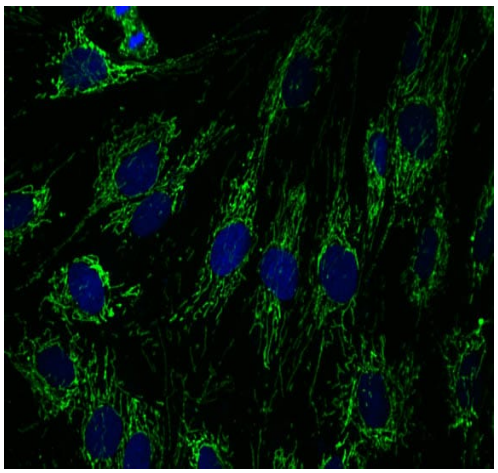
Complex I, or NADH ubiquinone oxidoreductase, is a large protein complex of 950,000 Da molecular weight made up by 45 to 46 different subunits. A total of seven of the subunits of the complex are encoded by mitochondrial DNA, while the remainder subunits are nuclear encoded, which are translated in the cytosol and translocated into the organelle for assembly at the inner membrane. The enzyme complex catalyses electron entry from NADH via a flavin (FMN) and several non-heme iron centers. Complex I is sensitive to a wide range of inhibitors, many of which are pesticides or other common environmental toxins, such as rotenone. Complex I dysfunction is a common cause of genetic OXPHOS defects. Altered functioning of this complex is also thought to contribute to several neurological disorders including Parkinson's disease and schizophrenia. Also, there is evidence of Complex I involvement in diabetes.

## 图片



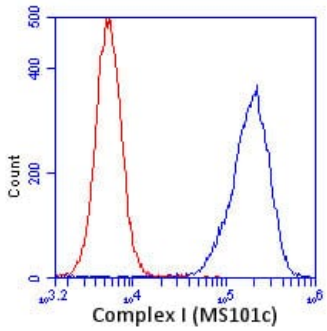

Immunoprecipitation - Anti-Complex I Immunocapture antibody [18G12BC2] (ab109798)

Complex I was immunopurified from mitochondria isolated from human heart (HHM), cow/bovine heart (BHM), mouse heart (MHM) and mouse brain (MBM). The lanes were stained with Coomassie Brilliant Blue R. Bands were excised from the gel and proteolytically digested for mass spectrometry analysis. For the immuno-isolation, 50 µg of mAb (18G12BC2 ab109798) was bound to 5 µl of swollen protein G agarose beads according to protocol described **here**.



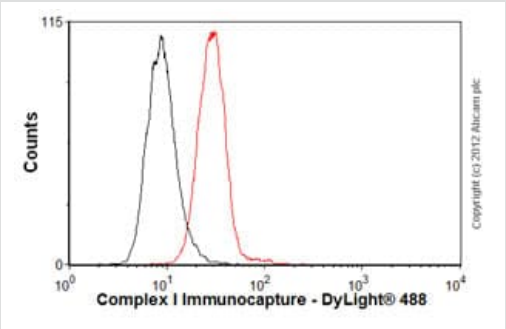
Immunocytochemistry/ Immunofluorescence - Anti-Complex I Immunocapture antibody [18G12BC2] (ab109798)

Immunocytochemistry image of ab109798 stained fibroblasts cells. The cells were paraformaldehyde fixed (4%, 20 minutes) and Triton X-100 permeabilized (0.1%, 15 minutes). The cells were incubated with the antibody (ab109798, 1 µg/mL) for 2 hours at room temperature or over night at 4°C. The secondary antibody was (green) Alexa Fluor® 4884 goat anti-mouse IgG (H+L) at a 1/1000 dilution for 1 hour. 10% Goat serum was used as the blocking agent for all blocking steps. The target protein locates to the mitochondria.




Flow Cytometry - Anti-Complex I Immunocapture antibody [18G12BC2] (ab109798)

HL-60 cells were stained with 1 µg/mL Complex I antibody ab109798 (blue) or an equal amount of an isotype control antibody (red) and analyzed by flow cytometry.




Flow Cytometry - Anti-Complex I Immunocapture antibody [18G12BC2] (ab109798)

Overlay histogram showing HepG2 cells stained with ab109798 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab109798, 2µg/1x$10^6$ cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (**ab91366**, 2µg/1x$10^6$ cells ) used under the same conditions. Acquisition of >5,000 events was performed.

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