abcam

Product datasheet

Anti-TFEB antibody [EPR22940-151] ab270604

重组 RabMAb

9 References 10 图像

概述

产品名称 Anti-TFEB抗体[EPR22940-151]

描述 兔单克隆抗体[EPR22940-151] to TFEB

宿主 Rabbit

适用于: ICC/IF, IP, Flow Cyt (Intra), IHC-P, WB 经测试应用

种属反应性 与反应: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: IM-9 and Raji whole cell lysate. IHC-P: Human lung cancer and colon tissue. ICC/IF: IM-9 and

Raji cells. Flow Cyt (intra): IM-9 and Raji cells. IP: Raji whole cell lysate.

常规说明 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**.

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

存储溶液 pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

克隆 单克隆

克隆编号 EPR22940-151

同种型 lgG

The Abpromise guarantee

Abpromise™承诺保证使用ab270604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		1/50.
IP		1/30.
Flow Cyt (Intra)		1/500.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 66 kDa (predicted molecular weight: 53 kDa).

靶标

功能

Transcription factor that specifically recognizes and binds E-box sequences (3'-CANNTG-5'). Efficient DNA-binding requires dimerization with itself or with another MiT/TFE family member such as TFE3 or MITF. In association with TFE3, activates the expression of CD40L in T-cells, thereby playing a role in T-cell-dependent antibody responses in activated CD4(+) T-cells and thymus-dependent humoral immunity. Specifically recognizes and binds the CLEAR-box sequence (5'-GTCACGTGAC-3') present in the regulatory region of many lysosomal genes, leading to activate their expression. It thereby plays a central role in expression of lysosomal genes. Specifically recognizes the gamma-E3 box, a subset of E-boxes, present in the heavy-chain immunoglobulin enhancer. Plays a role in the signal transduction processes required for normal vascularization of the placenta.

序列相似性

Belongs to the MiT/TFE family.

Contains 1 basic helix-loop-helix (bHLH) domain.

结构域

 $\label{thm:continuous} The \ leucin\ zipper\ region\ is\ essential\ for\ homo-\ or\ heterodimerization\ and\ high-affinity\ DNA$

binding. DNA binding is mediated by the basic region.

翻译后修饰

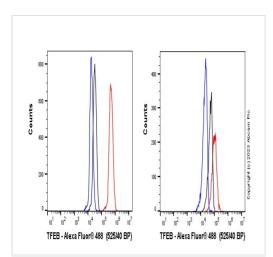
Sumoylated; does not affect dimerization with MITF.

细胞定位

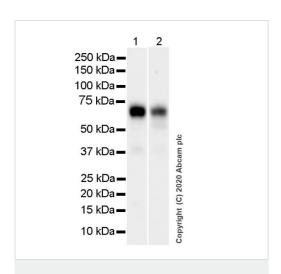
Cytoplasm. Nucleus. Mainly present in the cytoplasm. Under aberrant lysosomal storage

conditions, it translocates from the cytoplasm to the nucleus.

图片



Flow Cytometry (Intracellular) - Anti-TFEB antibody [EPR22940-151] (ab270604)



Western blot - Anti-TFEB antibody [EPR22940-151] (ab270604)

Flow cytometry overlay histogram showing left Raji positive cells and right negative MCF7 stained with ab270604 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10µg/ml human lgG and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab270604) (1x 10⁶ in 100µl at 0.2µg/ml (1/10350)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

All lanes : Anti-TFEB antibody [EPR22940-151] (ab270604) at 1/1000 dilution

Lane 1 : Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lane 2 : IM-9 (human multiple myeloma B Lymphoblast), whole cell lysate

Lysates/proteins at 40 µg per lane.

Secondary

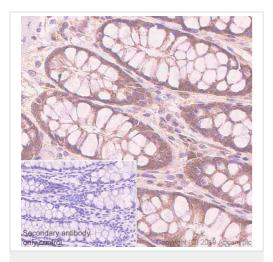
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 53 kDa
Observed band size: 66 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID:30519051).

Exposure time: 26 secs.

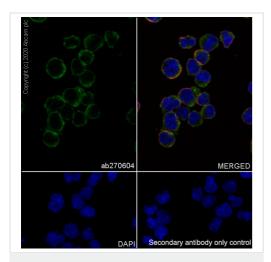


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TFEB antibody
[EPR22940-151] (ab270604)

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling TFEB with ab270604 at 1/500 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in human colon tissue is observed (PMID:30519051). The section was incubated with ab270604 for 20 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit lgG H&L (HRP).

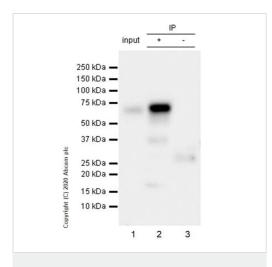
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



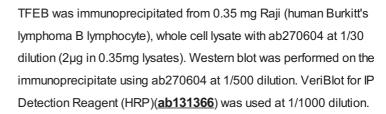
Immunocytochemistry/ Immunofluorescence - Anti-TFEB antibody [EPR22940-151] (ab270604)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Raji cells labeling TFEB with ab270604 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in Raji cells. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077**Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) at 1/1000 dilution.



Immunoprecipitation - Anti-TFEB antibody [EPR22940-151] (ab270604)



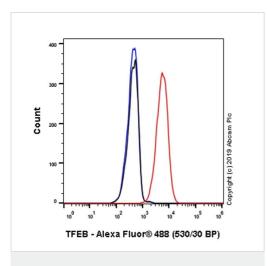
Lane 1: Raji whole cell lysate.

Lane 2: ab270604 IP in Raji whole cell lysate.

Lane 3: Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab270604 in Raji whole cell lysate.

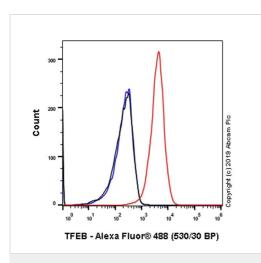
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 secs.



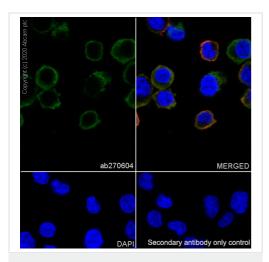
Flow Cytometry (Intracellular) - Anti-TFEB antibody [EPR22940-151] (ab270604)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized IM-9 (Human multiple myeloma B Lymphoblast) cells labeling TFEB with ab270604 at 1/500 (Red) compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-TFEB antibody [EPR22940-151] (ab270604)

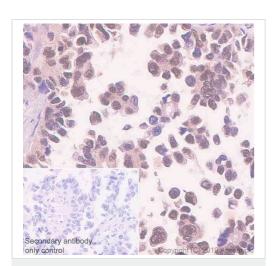
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Immunocytochemistry/ Immunofluorescence - Anti-TFEB antibody [EPR22940-151] (ab270604)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized IM-9 cells labeling TFEB with ab270604 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in IM-9 cells. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is <u>ab150077</u> Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) at 1/1000 dilution.

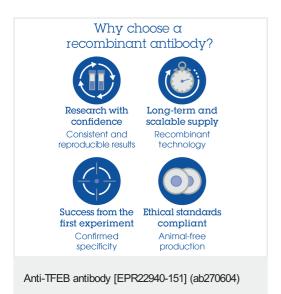


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TFEB antibody
[EPR22940-151] (ab270604)

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling TFEB with ab270604 at 1/500 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in human lung cancer tissue is observed (PMID:26264650). The section was incubated with ab270604 for 20 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit lgG H&L (HRP).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



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