

Product datasheet

Anti-TFEB antibody [EPR22941-6] ab267351

KO VALIDATED Recombinant RabMAb[®]

★★★★★ [1 Abreviews](#) [2 References](#) [11 Images](#)

Overview

Product name	Anti-TFEB antibody [EPR22941-6]
Description	Rabbit monoclonal [EPR22941-6] to TFEB
Host species	Rabbit
Tested applications	Suitable for: WB, IP, ICC/IF, IHC-P, Flow Cyt (Intra)
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Raji and IM-9 lysates. IHC-P: Human colon, Human lung cancer and Human breast cancer tissues. ICC/IF: Raji and IM-9 cells. Flow Cyt (intra): IM-9 cells. IP: Raji and IM-9 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22941-6
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab267351 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	★★★★★ (1)	1/1000. Detects a band of approximately 66 kDa (predicted molecular weight: 53 kDa).
IP		1/30.
ICC/IF		1/50.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.

Target

Function 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.

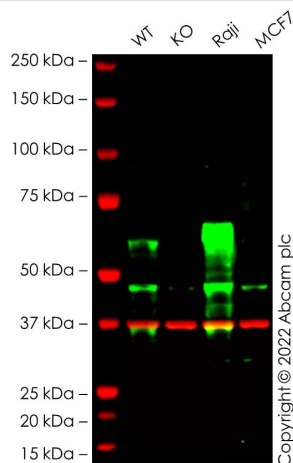
Sequence similarities Belongs to the MiT/TFE family.
Contains 1 basic helix-loop-helix (bHLH) domain.

Domain The leucin zipper region is essential for homo- or heterodimerization and high-affinity DNA binding. DNA binding is mediated by the basic region.

Post-translational modifications Sumoylated; does not affect dimerization with MITF.

Cellular localization Cytoplasm. Nucleus. Mainly present in the cytoplasm. Under aberrant lysosomal storage conditions, it translocates from the cytoplasm to the nucleus.

Images



Western blot - Anti-TFEB antibody [EPR22941-6] (ab267351)

All lanes : Anti-TFEB antibody [EPR22941-6] (ab267351) at 1/1000 dilution

Lane 1 : Wild-type HepG2 cell lysate

Lane 2 : TFEB knockout HepG2 cell lysate

Lane 3 : Raji cell lysate

Lane 4 : MCF7 cell lysate

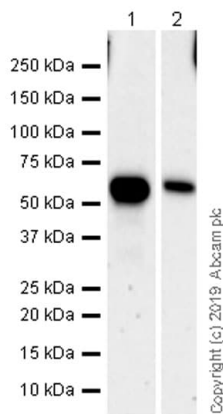
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 53 kDa

Observed band size: 60 kDa

False colour image of Western blot: Anti-TFEB antibody [EPR22941-6] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab267351 was shown to bind specifically to TFEB. A band was observed at 60 kDa in wild-type HepG2 cell lysates with no signal observed at this size in TFEB knockout cell line [ab277871](#) (knockout cell lysate [ab284220](#)). To generate this image, wild-type and TFEB knockout HepG2 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween[®] 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye[®] 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye[®] 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Western blot - Anti-TFEB antibody [EPR22941-6] (ab267351)

All lanes : Anti-TFEB antibody [EPR22941-6] (ab267351) 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 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

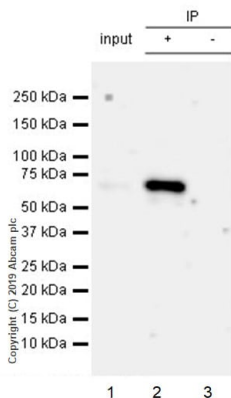
Predicted band size: 53 kDa

Observed band size: 66 kDa

Blocking and dilution buffer: 5% NFDm/TBST.

Exposure time: 3 minutes.

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



Immunoprecipitation - Anti-TFEB antibody [EPR22941-6] (ab267351)

TFEB was immunoprecipitated from 0.35 mg IM-9 (human multiple myeloma B Lymphoblast) whole cell lysate with ab267351 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab267351 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: IM-9 (human multiple myeloma B Lymphoblast) whole cell lysate 10µg

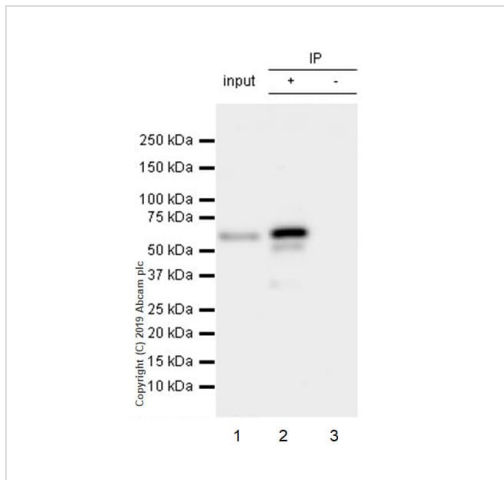
Lane 2: ab267351 IP in IM-9 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab267351 in IM-9 whole cell lysate

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

Exposure time: 2 min.

The weak band around 50kDa is one isoform of TFEB(PMID:28993453).



Immunoprecipitation - Anti-TFEB antibody
[EPR22941-6] (ab267351)

TFEB was immunoprecipitated from 0.35 mg Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate with ab267351 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab267351 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used at 1/5000 dilution.

Lane 1: Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate 10ug

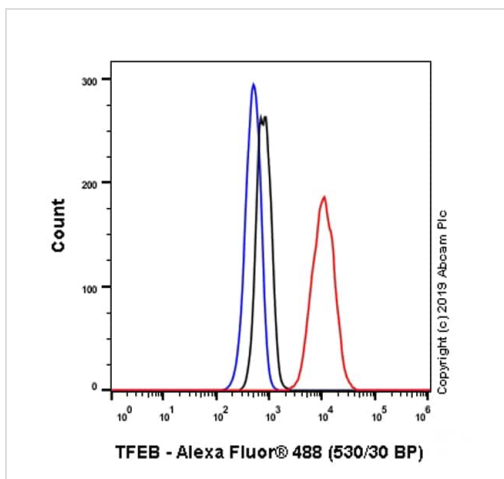
Lane 2: ab267351 IP in Raji whole cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab267351 in Raji whole cell lysate

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

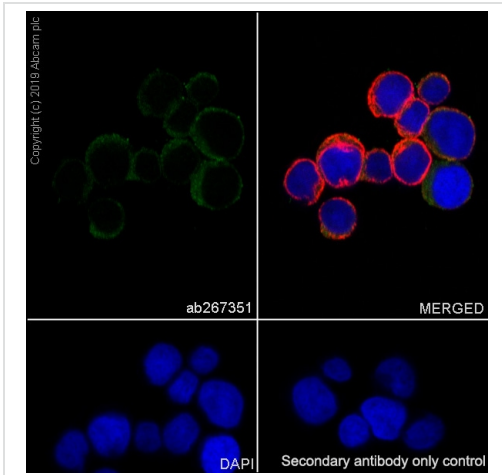
Exposure time: 15 seconds.

The weak band around 50kDa is one isoform of TFEB(PMID:28993453).



Flow Cytometry (Intracellular) - Anti-TFEB antibody
[EPR22941-6] (ab267351)

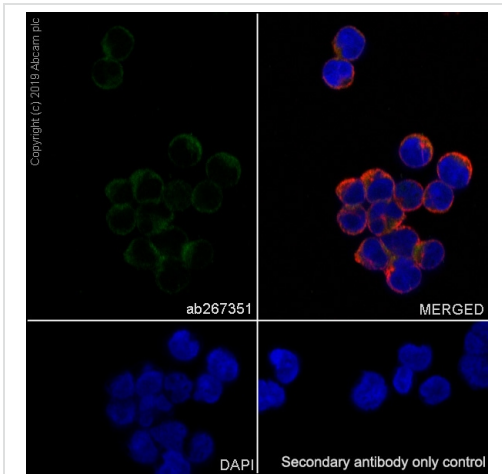
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized IM-9 (human multiple myeloma B Lymphoblast) cells labelling TFEB with ab267351 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabelled control (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.



Immunocytochemistry/ Immunofluorescence - Anti-TFEB antibody [EPR22941-6] (ab267351)

Immunofluorescent analysis of 100% Methanol-fixed IM-9 (human multiple myeloma B Lymphoblast) cells labelling TFEB with ab267351 at 1/50 dilution, followed by **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in IM-9 cells. 100% methanol fixation is recommended. **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).

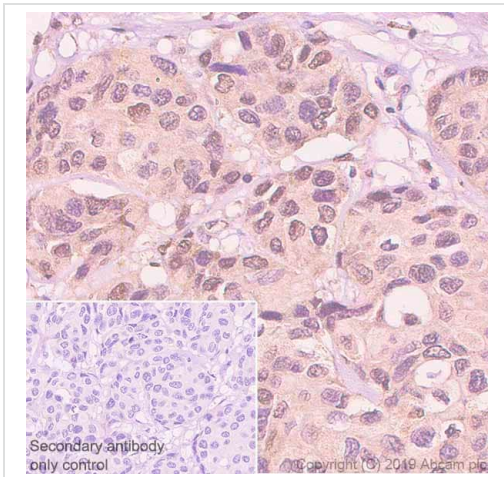
Secondary antibody only control: Secondary antibody is **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-TFEB antibody [EPR22941-6] (ab267351)

Immunofluorescent analysis of 100% Methanol-fixed Raji (human Burkitt's lymphoma B lymphocyte) cells labelling TFEB with ab267351 at 1/50 dilution, followed by **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in Raji cells. 100% methanol fixation is recommended. **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** AlexaFluor[®]488 Goat anti-Rabbit secondary at 1/1000 dilution.

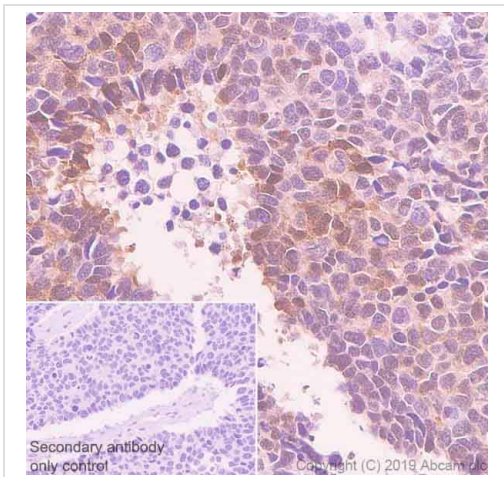


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TFEB antibody [EPR22941-6] (ab267351)

Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labeling TFEB with ab267351 at 1/500 dilution (1.042ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in human breast cancer (PMID:28017540). The section was incubated with **ab256492** for 15 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 Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

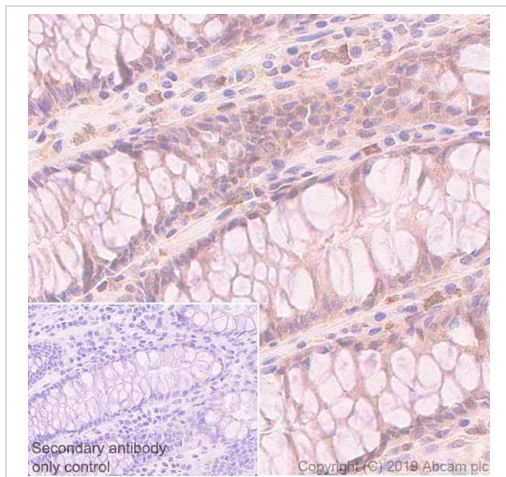


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TFEB antibody [EPR22941-6] (ab267351)

Immunohistochemical analysis of paraffin-embedded Human lung cancer tissue labeling TFEB with ab267351 at 1/500 dilution (1.042ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in human lung cancer (PMID: 26264650) The section was incubated with **ab256492** for 15 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 Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.






Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TFEB antibody [EPR22941-6] (ab267351)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling TFEB with ab267351 at 1/500 dilution (1.042ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining human colon (PMID:30519051). The section was incubated with **ab256492** for 15 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 Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-TFEB antibody [EPR22941-6] (ab267351)

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

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