abcam

Product datasheet

Anti-Emerin antibody [EPR11071] ab156871

KO VALIDATED Recombinant RabMAb

5 References 9 Images

Overview

Product name	Anti-Emerin antibody [EPR11071]
Description	Rabbit monoclonal [EPR11071] to Emerin
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human Emerin aa 150-250. The exact sequence is proprietary.
Positive control	WB: HAP1, HeLa, and HEK-293T whole cell lysates; IHC-P: Human breast, skeletal muscle thyroid gland carcinoma tissues; ICC/IF: HeLa cells; Flow Cyt (intra): HeLa cells.
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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR11071

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab156871 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
Flow Cyt (Intra)		1/30.
WB		1/1000. Predicted molecular weight: 29 kDa. **For unpurified use at 1/1000 - 1/10000**
ICC/IF		1/50. **For unpurified use at 1/100 - 1/250**
IHC-P		1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/50 - 1/100**

Target

Function Stabilizes and promotes the formation of a nuclear actin cortical network. Stimulates actin polymerization in vitro by binding and stabilizing the pointed end of growing filaments. Inhibits beta-catenin activity by preventing its accumulation in the nucleus. Acts by influencing the nuclear accumulation of beta-catenin through a CRM1-dependent export pathway. Links centrosomes to the nuclear envelope via a microtubule association. EMD and BAF are cooperative cofactors of HIV-1 infection. Association of EMD with the viral DNA requires the presence of BAF and viral integrase. The association of viral DNA with chromatin requires the presence of BAF and EMD. Required for proper localization of non-farnesylated prelamin-A/C.

Tissue specificity Skeletal muscle, heart, colon, testis, ovary and pancreas.

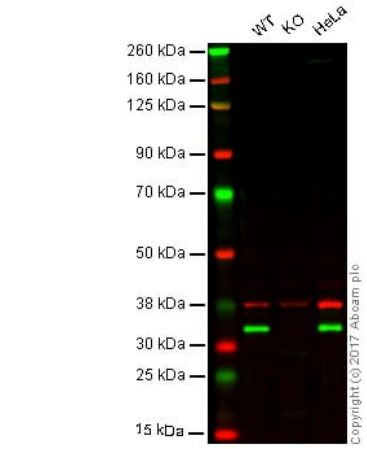
Involvement in disease Defects in EMD are the cause of Emery-Dreifuss muscular dystrophy type 1 (EDMD1) [MIM:310300]. A degenerative myopathy characterized by weakness and atrophy of muscle without involvement of the nervous system, early contractures of the elbows Achilles tendons and spine, and cardiomyopathy associated with cardiac conduction defects.

Sequence similarities Contains 1 LEM domain.

Post-translational modifications Found in four different phosphorylated forms, three of which appear to be associated with the cell cycle.

Cellular localization Nucleus inner membrane. Nucleus outer membrane. Colocalized with BANF1 at the central region of the assembling nuclear rim, near spindle-attachment sites. The accumulation of different intermediates of prelamin-A/C (non-farnesylated or carboxymethylated farnesylated prelamin-A/C) in fibroblasts modify its localization in the nucleus.

Images



Western blot - Anti-Emerin antibody [EPR11071] (ab156871)

All lanes : Anti-Emerin antibody [EPR11071] (ab156871) at 1/1000 dilution (unpurified)

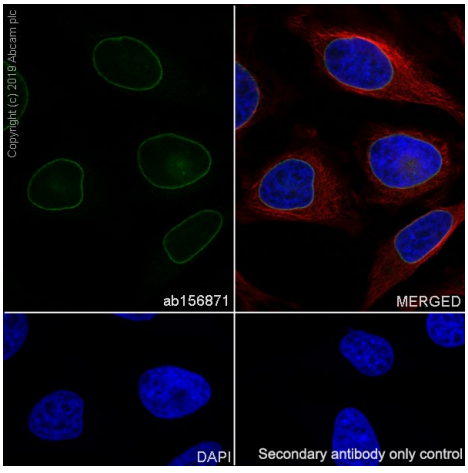
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : EMD (Emerin) knockout HAP1 whole cell lysate
Lane 3 : HeLa whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 29 kDa

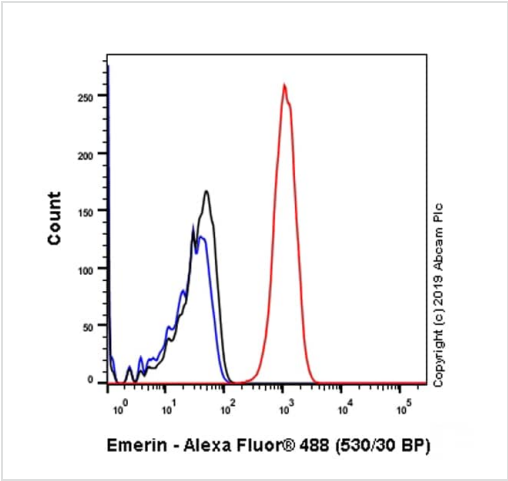
Lanes 1 - 3: Merged signal (red and green). Green - ab156871 observed at 32 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab156871 was shown to specifically react with Emerin in wild-type HAP1 cells as signal was lost in EMD (Emerin) knockout cells. Wild-type and EMD (Emerin) knockout samples were subjected to SDS-PAGE. Ab156871 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



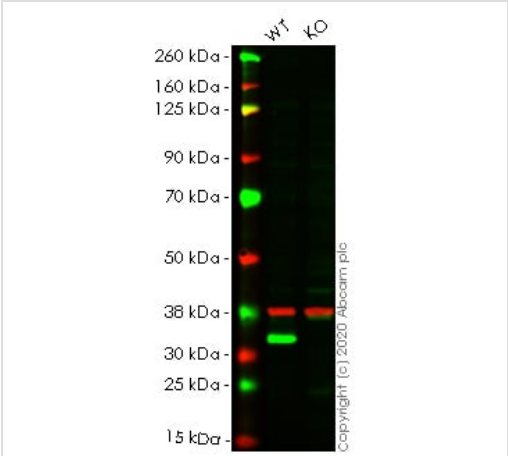
Immunocytochemistry/ Immunofluorescence - Anti-Emerin antibody [EPR11071] (ab156871)

Immunocytochemistry/Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Emerin with Purified ab156871 at 1:50 dilution (6.5 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-Emerin antibody [EPR11071] (ab156871)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells, labeling Emerin with Purified ab156871 at 1/30 dilution (10µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-Emerin antibody [EPR11071] (ab156871)

All lanes : Anti-Emerin antibody [EPR11071] (ab156871) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : EMD knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

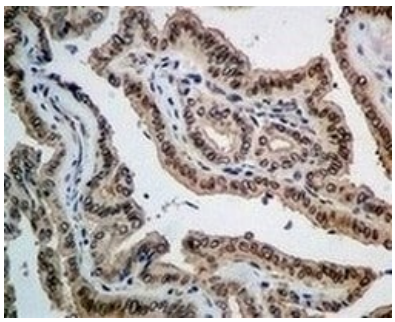
Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 35 kDa

Lanes 1-2: Merged signal (red and green). Green - ab156871 observed at 35 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab156871 Anti-Emerin antibody [EPR11071] was shown to specifically react with Emerin in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab266336** (knockout cell lysate **ab257423**) was used. Wild-type and Emerin knockout samples were subjected to SDS-PAGE. ab156871 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at

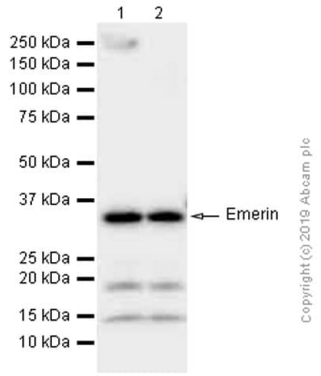
1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] (ab156871)

Immunohistochemical analysis of paraffin-embedded Human thyroid gland carcinoma tissue labeling Emerin with unpurified ab156871 at 1/50 dilution.

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



Western blot - Anti-Emerin antibody [EPR11071] (ab156871)

All lanes : Anti-Emerin antibody [EPR11071] (ab156871) at 1/10000 dilution (Purified)

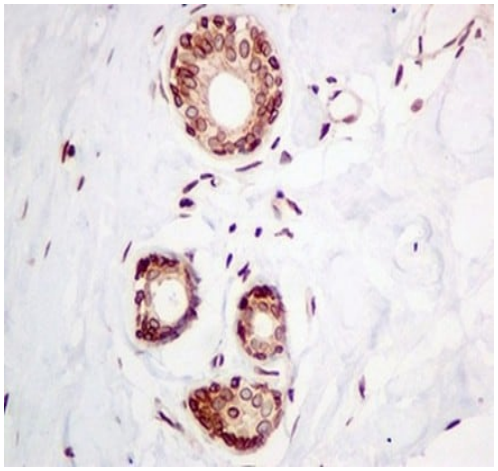
Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 29 kDa
Observed band size: 35 kDa

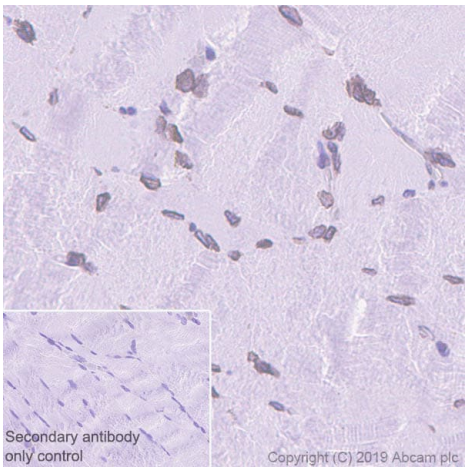
Blocking/Diluting buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] (ab156871)

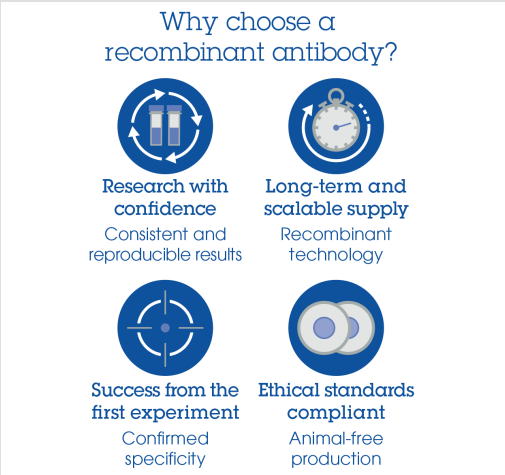
Immunohistochemical analysis of paraffin-embedded Human breast tissue labeling Emerin with unpurified ab156871 at 1/50 dilution.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] (ab156871)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skeletal muscle tissue sections labeling Emerin with purified ab156871 at 1/500 dilution (0.652 µg/mL). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Anti-Emerin antibody [EPR11071] (ab156871)

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