abcam

Product datasheet

Anti-Emerin antibody [EPR11071] - BSA and Azide free ab240138

KO VALIDATED Recombinant RabMAb

8 Images

Overview

Product name	Anti-Emerin antibody [EPR11071] - BSA and Azide free
Description	Rabbit monoclonal [EPR11071] to Emerin - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
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	ab240138 is the carrier-free version of **ab156871**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR11071
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab240138 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

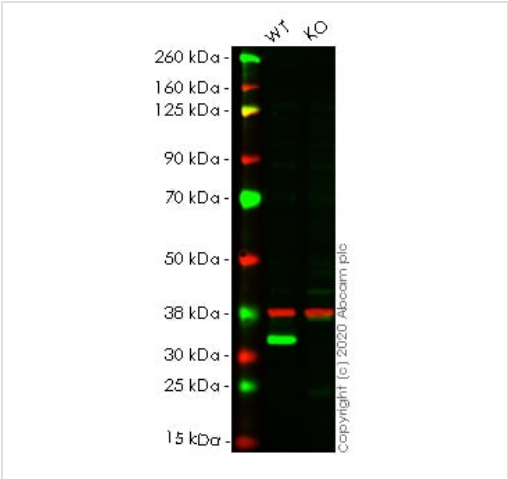
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 29 kDa.

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] - BSA and Azide free (ab240138)

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.

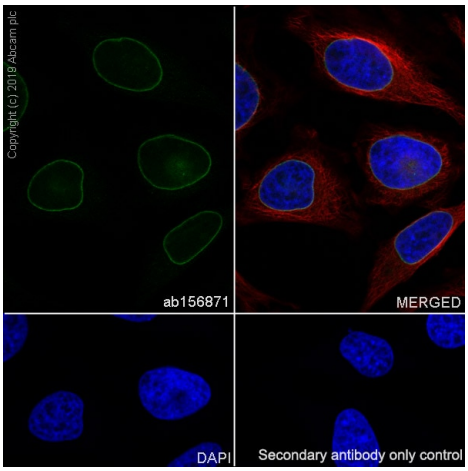
Predicted band size: 29 kDa
Observed band size: 35 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab156871**).

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

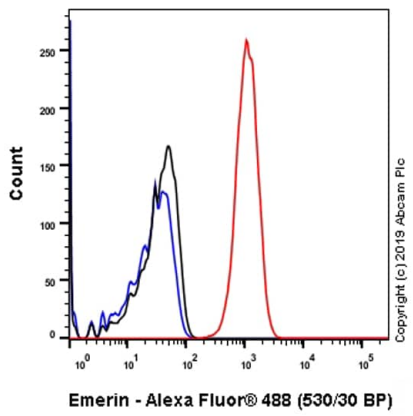
1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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.

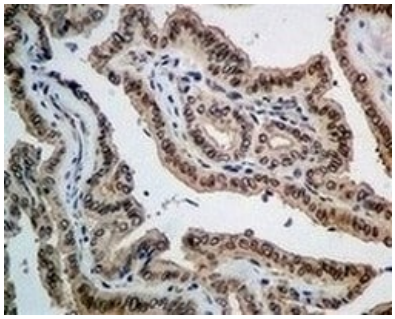
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).



Flow Cytometry (Intracellular) - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).

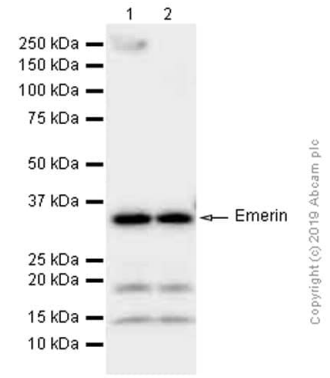


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Western blot - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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

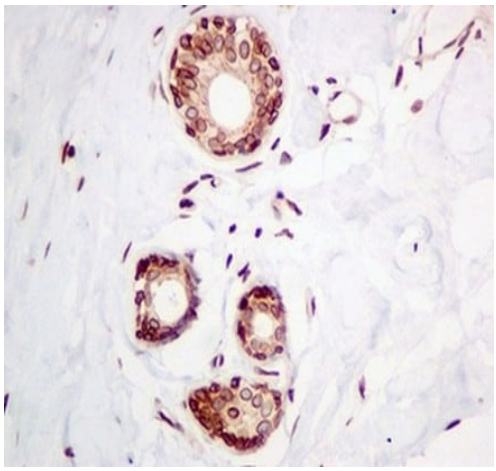
Lysates/proteins at 20 µg per lane.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).

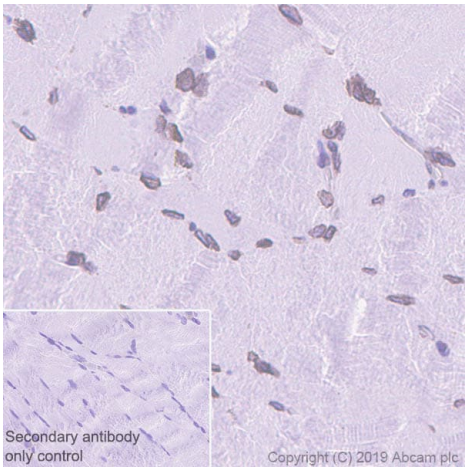


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).

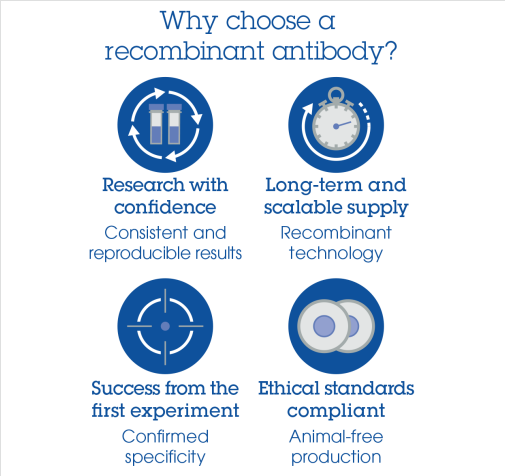
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab156871**).



Anti-Emerin antibody [EPR11071] - BSA and Azide free (ab240138)

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