

## Product datasheet

# Anti-Emerin antibody ab54996

★★★★☆ 1 Abreviews 3 References 3 Images

### Overview

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|                            |  |
|----------------------------|--|
| <b>Product name</b>        | Anti-Emerin antibody   |
| <b>Description</b>         | Mouse monoclonal to Emerin   |
| <b>Host species</b>        | Mouse  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, IHC-P, Flow Cyt, ICC/IF   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Human  |
| <b>Immunogen</b>           | Recombinant fragment, corresponding to amino acids 1-111 of Human Emerin   |
| <b>General notes</b>       | Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We would recommend antibody <a href="#">ab204987</a> as a replacement. |

### Properties

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|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. |
| <b>Storage buffer</b>       | Preservative: None<br>PBS, pH 7.2   |
| <b>Purity</b>               | Protein G purified  |
| <b>Clonality</b>            | Monoclonal  |
| <b>Isotype</b>              | IgG2a   |
| <b>Light chain type</b>     | kappa   |

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab54996** 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          |           | Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 29 kDa.  |
| IHC-P       |           | Use a concentration of 1 µg/ml.  |
| Flow Cyt    |           | Use 0.1µg for 10 <sup>6</sup> cells.<br><a href="#">ab170191</a> - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |
| ICC/IF      |           | Use a concentration of 10 µg/ml.   |

## 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.

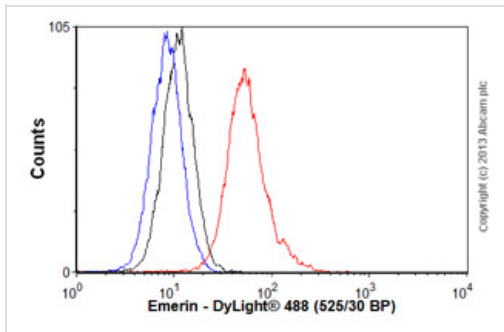
### Post-translational modifications

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

### Cellular localization

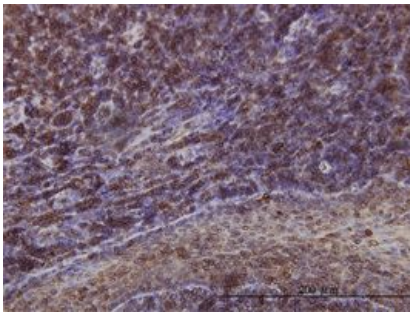
Nucleus inner membrane. Nucleus outer membrane. Colocalized with BANF1 at the central region of the assembling nuclear rim, near spindle-attachment sites. The accumulation of different intermediates of prelamin-A/C (non-farnesylated or carboxymethylated farnesylated prelamin-A/C) in fibroblasts modify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

## Images



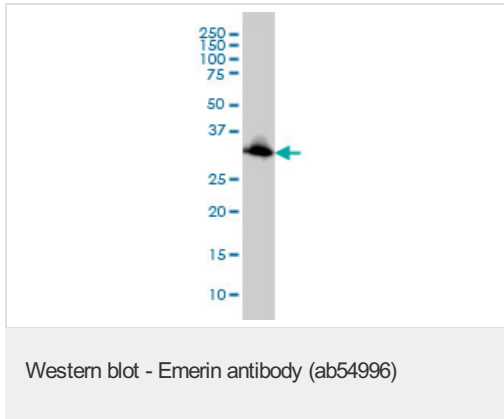
Flow Cytometry - Anti-Emerin antibody (ab54996)

Overlay histogram showing HeLa cells stained with ab54996 (red line). The cells were fixed with 4% paraformaldehyde (10 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 followed by the antibody (ab54996, 0.1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Emerin antibody (ab54996)

Emerin antibody (ab54996) used in immunohistochemistry at 1µg/ml on formalin fixed and paraffin embedded human tonsil.



Emerin antibody (ab54996) at 1ug/lane +  
HeLa cell lysate at 25ug/lane.

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