abcam

Product datasheet

Anti-LYRIC/AEG1 antibody ab45338

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Overview

Product name	Anti-LYRIC/AEG1 antibody
Description	Rabbit polyclonal to LYRIC/AEG1
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Cow
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	This antibody gave a positive signal in mouse and rat skeletal muscle tissue lysates, and in mouse heart tissue lysate. This antibody gave a positive result in IHC in the following FFPE tissue: Human skin cancer. ICC/IF: HeLa and MCF7 cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab45338 in the following tested applications.

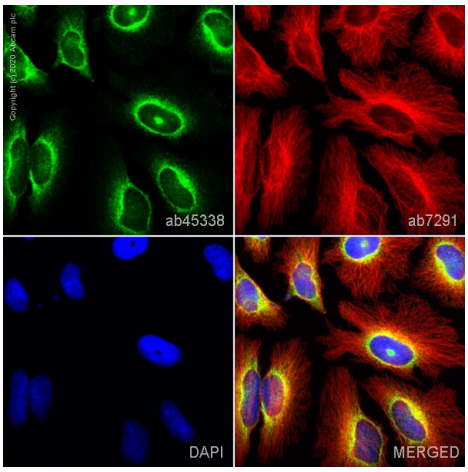
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★☆☆☆ (1)	Use a concentration of 5 - 10 µg/ml. Suitable for use in cells fixed with either 100% methanol (5mins) or 4% PFA (10mins).
WB	★★★☆☆ (2)	Use a concentration of 1 µg/ml. Detects a band of approximately 75 kDa (predicted molecular weight: 64 kDa).
IHC-P		Use a concentration of 5 µg/ml.

Target

Function	Downregulates SLC1A2/EAAT2 promoter activity when expressed ectopically. Activates the nuclear factor kappa-B (NF-kappa-B) transcription factor. Promotes anchorage-independent growth of immortalized melanocytes and astrocytes which is a key component in tumor cell expansion. Promotes lung metastasis and also has an effect on bone and brain metastasis, possibly by enhancing the seeding of tumor cells to the target organ endothelium. Induces chemoresistance.
Tissue specificity	Widely expressed with highest levels in muscle-dominating organs such as skeletal muscle, heart, tongue and small intestine and in endocrine glands such as thyroid and adrenal gland. Overexpressed in various cancers including breast, brain, prostate, melanoma and glioblastoma multiforme.
Cellular localization	Endoplasmic reticulum membrane. Nucleus membrane. Cell junction > tight junction. Nucleus > nucleolus. Cytoplasm > perinuclear region. In epithelial cells, recruited to tight junctions (TJ) during the maturation of the TJ complexes. A nucleolar staining may be due to nuclear targeting of an isoform lacking the transmembrane domain (By similarity). TNF-alpha causes translocation from the cytoplasm to the nucleus.

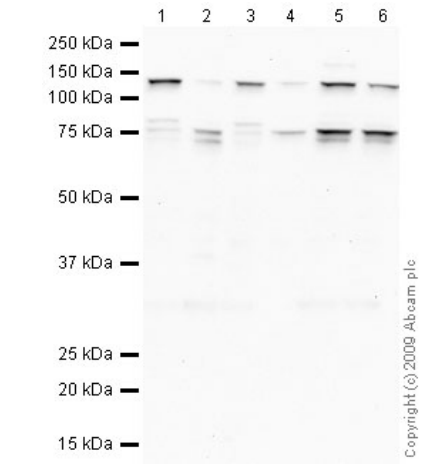
Images



Immunocytochemistry/ Immunofluorescence - Anti-LYRIC/AEG1 antibody (ab45338)

ab45338 staining LYRIC in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1%PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab45338 at 10µg/ml and **ab7291**, Anti-alpha Tubulin antibody [DM1A] - Loading Control, at 1/1000 dilution. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed (shown in green) and **ab1500120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Western blot - Anti-LYRIC/AEG1 antibody (ab45338)

All lanes : Anti-LYRIC/AEG1 antibody (ab45338) at 1 µg/ml

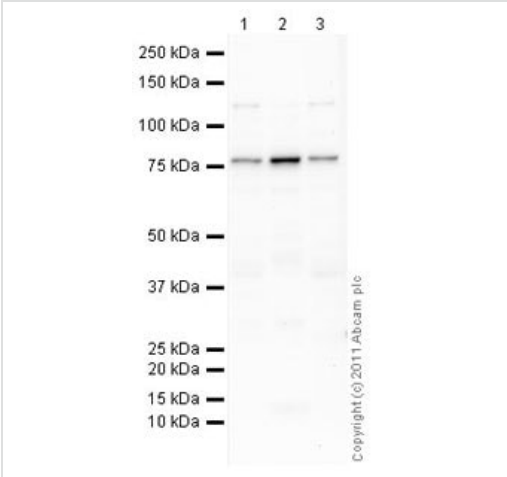
Lane 1 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 2 : MDA-MB-231 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 3 : MDA-MB-361 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 4 : DU145 (Human Prostate carcinoma epithelial like cell line) Whole Cell lysate
Lane 5 : PC-3 whole cell lysate (**ab3954**)
Lane 6 : U-87 MG nuclear extract lysate (**ab14903**)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 64 kDa
Observed band size: 75 kDa
Additional bands at: 130 kDa, 80 kDa (possible post-translational modification). We are unsure as to the identity of these extra bands.



Western blot - Anti-LYRIC/AEG1 antibody (ab45338)

All lanes : Anti-LYRIC/AEG1 antibody (ab45338) at 1 µg/ml

Lane 1 : Skeletal Muscle (Mouse) Tissue Lysate
Lane 2 : Heart (Mouse) Tissue Lysate
Lane 3 : Skeletal Muscle (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

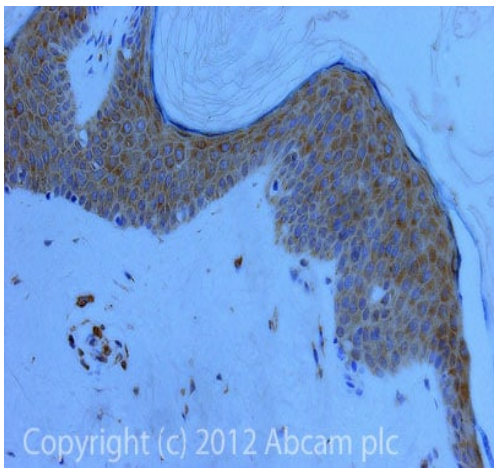
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 64 kDa

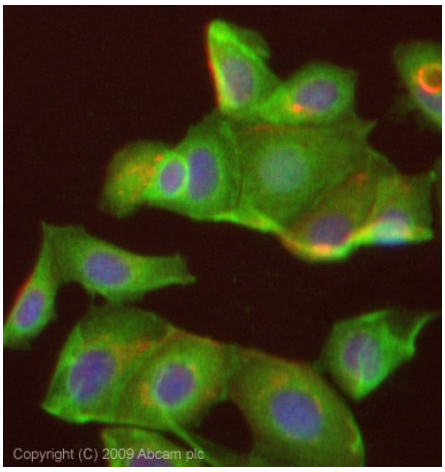
Exposure time: 1 minute



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYRIC/AEG1 antibody (ab45338)

IHC image of LYRIC/AEG1 staining in Human skin cancer formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab45338, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times



Immunocytochemistry/ Immunofluorescence - Anti-LYRIC/AEG1 antibody (ab45338)

ICC/IF image of ab45338 stained MCF7 cells. The cells were 4% PFA fixed (10 min), permabilised in 0.1% PBS-Tween (20 min) and incubated with the antibody (ab45338, 5µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue). This antibody also gave a positive IF result in MCF7 cells fixed in 100% methanol (10 min) cells.

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