abcam

Product datasheet

Anti-LEF1 antibody [EPR2029Y] ab137872

Recombinant RabMAb

★★★★★ 1 Abreviews 15 References 12 Images

Overview

Product name	Anti-LEF1 antibody [EPR2029Y]
Description	Rabbit monoclonal [EPR2029Y] to LEF1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt, IP, WB, IHC-P, ICC/IF, IHC-FoFr
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human LEF1 aa 100-200. The exact sequence is proprietary. Database link: Q9UJU2
Positive control	WB: Jurkat whole cell lysate (ab7899); Rat thymus tissue lysate; Human fetal lysate; His-tagged mouse LEF-1 recombinant protein (aa1-397). IHC-P: Human tonsil and thymus tissues; Mouse and rat spleen tissues. ICC/IF: Jurkat cells. Flow Cyt: Jurkat cells.
General notes	Abcam recommended secondaries - Goat Anti-Rabbit HRP (ab205718) and Goat Anti-Rabbit Alexa Fluor® 488 (ab150077). See other anti-rabbit secondary antibodies that can be used with this antibody. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

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. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2029Y
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab137872** 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		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		1/1000. Predicted molecular weight: 44 kDa. We don't recommend this antibody for mouse in Western Blot. In our hands an extra band was observed in mouse tissue lysates.
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols.
ICC/IF		1/500.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 24586192

Target

Function

Participates in the Wnt signaling pathway. Activates transcription of target genes in the presence of CTNNB1 and EP300. May play a role in hair cell differentiation and follicle morphogenesis. TLE1, TLE2, TLE3 and TLE4 repress transactivation mediated by LEF1 and CTNNB1. Regulates T-cell receptor alpha enhancer function. Binds DNA in a sequence-specific manner. PIAG antagonizes both Wnt-dependent and Wnt-independent activation by LEF1 (By similarity). Isoform 3 lacks the CTNNB1 interaction domain and may be an antagonist for Wnt signaling. Isoform 5 transcriptionally activates the fibronectin promoter, binds to and represses transcription from the E-cadherin promoter in a CTNNB1-independent manner, and is involved in reducing cellular aggregation and increasing cell migration of pancreatic cancer cells. Isoform 1 transcriptionally activates MYC and CCND1 expression and enhances proliferation of pancreatic tumor cells.

Tissue specificity

Detected in thymus. Not detected in normal colon, but highly expressed in colon cancer biopsies and colon cancer cell lines. Expressed in several pancreatic tumors and weakly expressed in normal pancreatic tissue. Isoforms 1 and 5 are detected in several pancreatic cell lines.

Sequence similarities

Belongs to the TCF/LEF family.
Contains 1 HMG box DNA-binding domain.

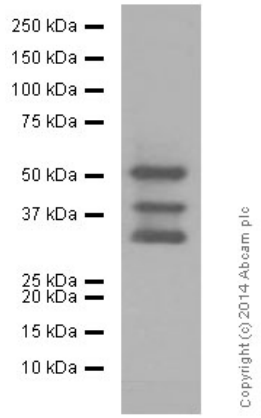
Domain

Proline-rich and acidic regions are implicated in the activation functions of RNA polymerase II transcription factors.

Cellular localization

Nucleus. Found in nuclear bodies upon PIASG binding.

Images



Western blot - Anti-LEF1 antibody [EPR2029Y] (ab137872)

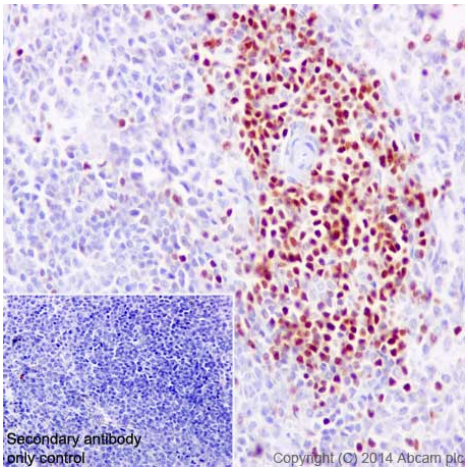
Anti-LEF1 antibody [EPR2029Y] (ab137872) at 1/2000 dilution (purified) + Rat thymus tissue lysate at 20 µg

Secondary

HRP goat anti-rabbit (H+L) at 1/1000 dilution

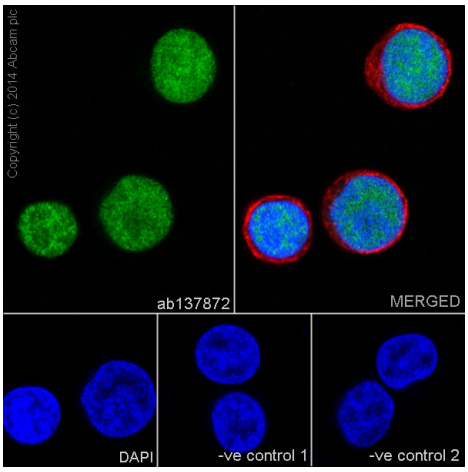
Predicted band size: 44 kDa

Blocking/Dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LEF1 antibody [EPR2029Y] (ab137872)

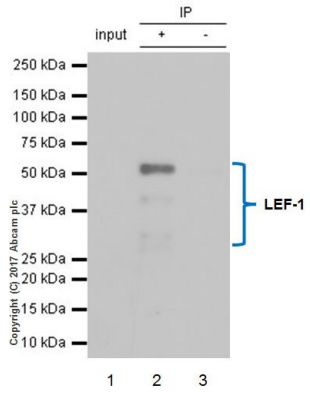
Immunohistochemical staining of paraffin embedded rat spleen with purified ab137872 at a working dilution of 1/500. The secondary antibody used is ab97051, an HRP-conjugated goat anti-rabbit IgG (H+L), at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Immunocytochemistry/ Immunofluorescence - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Immunofluorescence staining of Jurkat (Human T cell leukemia cell line from peripheral blood) cells with purified ab137872 at a working dilution of 1 in 500, counter-stained with DAPI. Tubulin was stained with mouse anti-tubulin at a dilution of 1/1000 (ab7291) and Alexa Fluor® 594 goat anti-mouse at a dilution of 1/500 (ab150120) . The secondary antibody was ab150077 Alexa Fluor® 488 goat anti rabbit, used at a dilution of 1 in 500. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100.

The negative controls are shown in the bottom middle and right hand panels - for the first negative control, purified ab137872 was used at a dilution of 1/200 followed by an Alexa Fluor® 555 goat anti-mouse antibody at a dilution of 1/500 and for the second negative control mouse primary antibody (ab7291) and anti-rabbit secondary antibody (ab15007) were used.



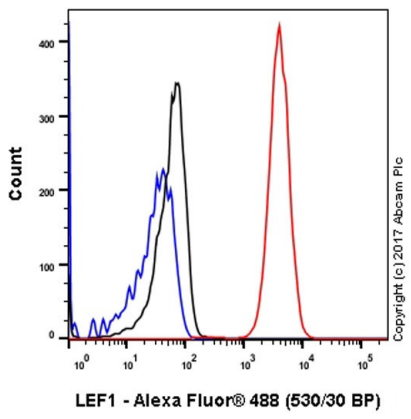
Immunoprecipitation - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Lane 1 (input): Jurkat (human T cell leukemia T lymphocyte) whole cell lysate, 10 µg
Lane 2 (+): Jurkat whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab137872 in Jurkat whole cell lysate

ab137872 immunoprecipitating LEF1 in Jurkat whole cell lysate. For western blotting, primary antibody used was ab137872 at 1:1000 dilution. ab131366 VeriBlot for IP (HRP) was used as the secondary antibody at 1:10,000 dilution.

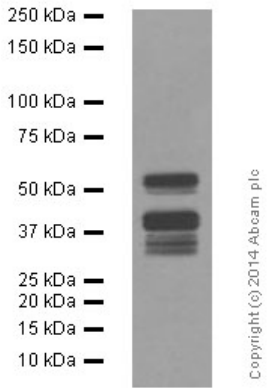
Blocking and diluting buffer: 5% NFDM/TBST

Exposure time: 3 minutes



Flow Cytometry - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Flow cytometric analysis of Jurkat cell line (human T cell leukemia T lymphocyte) fixed with 4% paraformaldehyde and permeabilized with 90% methanol labeling LEF1 with ab137872 at 1:600 dilution (red). This is compared with a Rabbit monoclonal IgG (ab172730) - Isotype control (black) and a unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti-rabbit IgG (Alexa Fluor® 488) was used as the secondary antibody.



Western blot - Anti-LEF1 antibody [EPR2029Y] (ab137872)

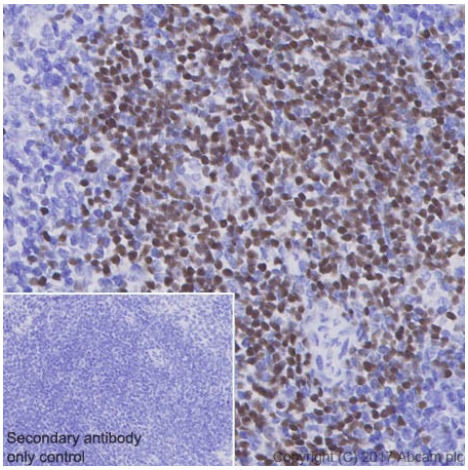
Anti-LEF1 antibody [EPR2029Y] (ab137872) at 1/10000 dilution (purified) + Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate at 10 µg

Secondary

HRP goat anti-rabbit (H+L) at 1/1000 dilution

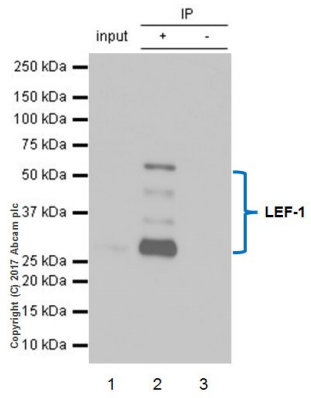
Predicted band size: 44 kDa

Blocking/Dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LEF1 antibody [EPR2029Y] (ab137872)

ab137872 staining LEF1 in paraffin embedded mouse spleen tissue by Immunohistochemistry. Antigen retrieval was by heat mediation using ab93684 (Tris/EDTA buffer, ph 9). Samples were incubated with primary antibody at 1:2000 dilution. A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counter stain. Nuclear staining on T cells in periarterial lymphatic sheath of mouse spleen is observed (PMID: 21685909).



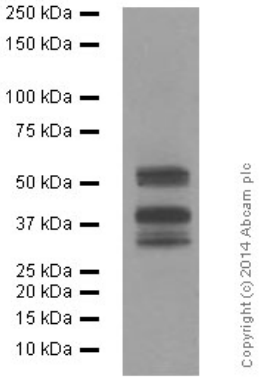
Immunoprecipitation - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Lane 1 (input): Rat thymus lysate, 10µg
Lane 2 (+): Rat thymus lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab137872 in rat thymus lysate

ab137872 immunoprecipitating LEF1 in rat thymus lysate. For western blotting, primary antibody used was ab137872 at 1:1000 dilution. ab131366 VeriBlot for IP (HRP) was used as the secondary antibody at 1:10,000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST

Exposure time: 3 minutes



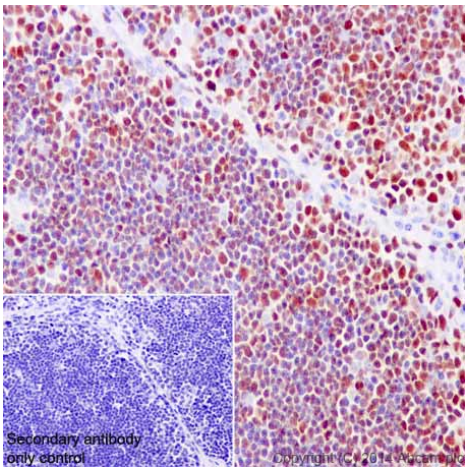
Western blot - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Anti-LEF1 antibody [EPR2029Y] (ab137872) at 1/1000 dilution (purified) + Human fetal thymus lysate at 10 µg

Secondary
HRP goat anti-rabbit (H+L) at 1/1000 dilution

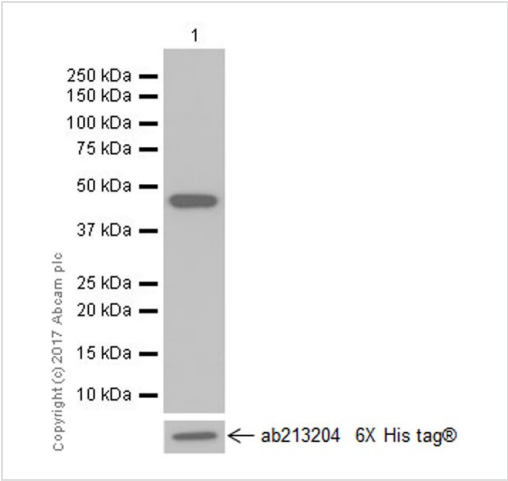
Predicted band size: 44 kDa

Blocking/Dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Immunohistochemical staining of paraffin-embedded human thymus with purified ab137872 at a working dilution of 1/500. The secondary antibody used is ab97051, an HRP-conjugated goat anti-rabbit IgG (H+L), at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Western blot - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Anti-LEF1 antibody [EPR2029Y] (ab137872) at 1/1000 dilution + His-tagged mouse LEF-1 recombinant protein (aa1-397) at 0.01 µg

Secondary

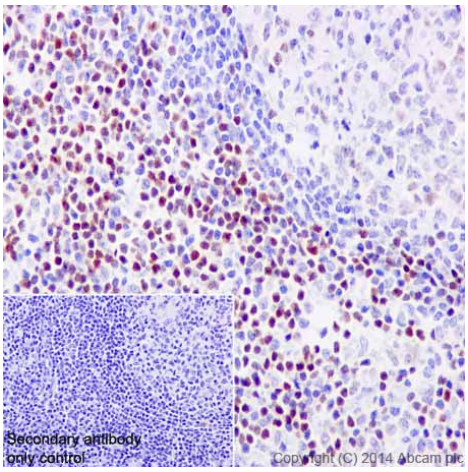
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 44 kDa

Observed band size: 44 kDa

Exposure time: 1 second

Blocking and diluting buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LEF1 antibody [EPR2029Y] (ab137872)

Immunohistochemical staining of paraffin embedded human tonsil with purified ab137872 at a working dilution of 1/500. The secondary antibody used is ab97051, an HRP-conjugated goat anti-rabbit IgG (H+L), at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

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