

Product datasheet

Anti-LINE-1 ORF1p antibody [EPR21844-108] ab216324

Recombinant RabMAb

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Overview

Product name	Anti-LINE-1 ORF1p antibody [EPR21844-108]
Description	Rabbit monoclonal [EPR21844-108] to LINE-1 ORF1p
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: F9 whole cell lysate and mouse testis lysate. IHC-P: Mouse testis tissue. ICC/IF: F9 cells. Flow Cyt (intra): F9 cells. IP: F9 whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21844-108
Isotype	IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab216324 in the following tested applications.

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

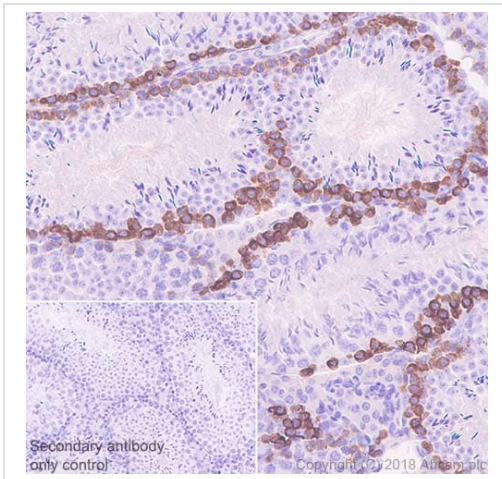
Application	Abreviews	Notes
Flow Cyt (Intra)		1/500.
WB		1/1000. Detects a band of approximately 41 kDa (predicted molecular weight: 41 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100.
IP		1/30.

Target

Relevance

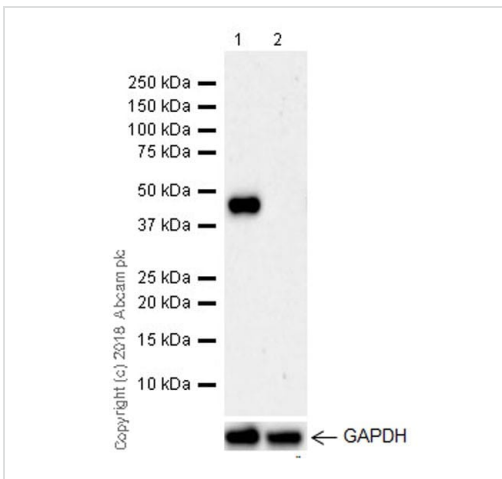
Domain: The coiled coil domain mediates homotrimerization. The RRM and the CTD domain are both required for proper RNA-binding activity. Function: Nucleic acid-binding protein which is essential for retrotransposition of LINE-1 elements in the genome. Functions as a nucleic acid chaperone binding its own transcript and therefore preferentially mobilizing the transcript from which they are encoded. Long interspersed element-1/LINE-1/L1 retrotransposons are present in more than 500'000 full (6 kb) or truncated copies in the human genome. Most of them are inactive but 80 to 100 of those elements could be transcribed, translated and active in any individual. An active LINE-1 encodes for 2 proteins translated from a single RNA containing 2 non-overlapping ORFs, ORF1 and ORF2. ORF1p is described in this entry as a representative of all ORF1p potentially expressed by active elements. ORF2p is described in the related entry AC O00370. PTM: Polyubiquitinated, probably by UBR2, which induces its degradation. Similarity: Belongs to the transposase 22 family.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling LINE-1 ORF1p with ab216324 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining on spermatogonia of mouse testis (PMID: 24607009) is observed. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

All lanes : Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324) at 1/1000 dilution

Lane 1 : F9 (mouse embryonal carcinoma epithelial cell), whole cell lysate

Lane 2 : NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

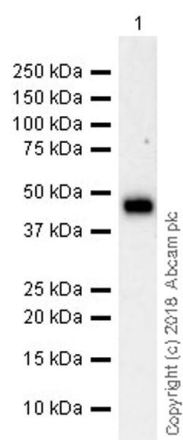
Predicted band size: 41 kDa

Observed band size: 41 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

Negative control: NIH/3T3 (PMID:24324740).



Western blot - Anti-LINE-1 ORF1p antibody
[EPR21844-108] (ab216324)

Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324) at
1/1000 dilution + mouse testis lysate at 20 µg

Secondary

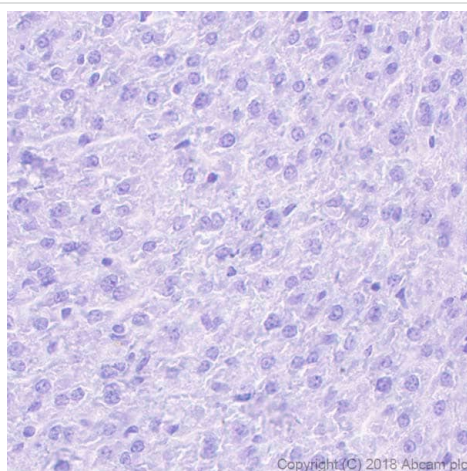
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 41 kDa

Observed band size: 41 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

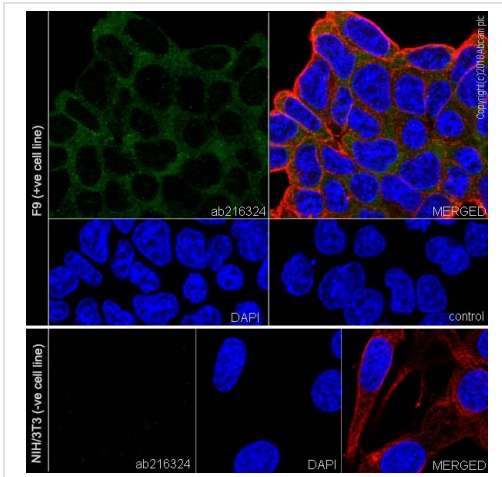


Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-LINE-1 ORF1p antibody
[EPR21844-108] (ab216324)

Immunohistochemical analysis of paraffin-embedded mouse liver
tissue labeling LINE-1 ORF1p with ab216324 at 1/500 dilution,
followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Negative control: No staining on mouse liver (PMID: 24607009) is
observed. Counterstained with hematoxylin.

Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA
buffer, pH 9.0).



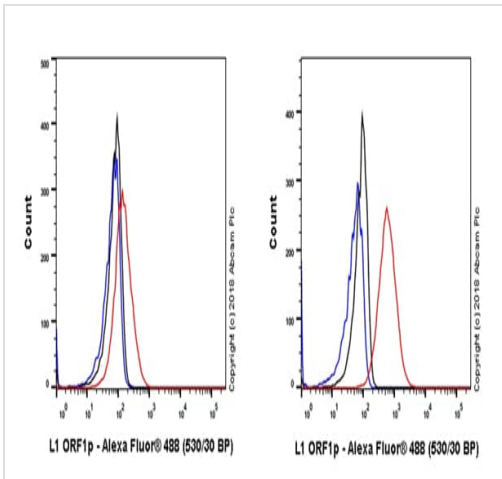
Immunocytochemistry/ Immunofluorescence - Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized F9 (mouse embryonal carcinoma epithelial cell) cells labeling LINE-1 ORF1p with ab216324 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (ab150077) secondary antibody at 1/1000 dilution (green).

Confocal image showing cytoplasmic staining in F9 cell line.

Negative control: NIH/3T3 (PMID: 24324740).

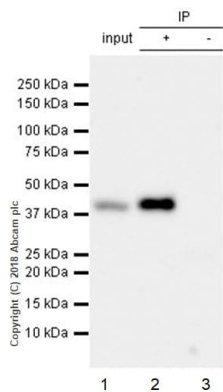
The nuclear counter stain is DAPI (blue). Tubulin is detected with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) at a 1/200 dilution (red).



Flow Cytometry (Intracellular) - Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized NIH/3T3 (mouse embryonic fibroblast, Left) / F9 (mouse embryonal carcinoma epithelial cell, Right) cell lines labeling LINE-1 ORF1p with ab216324 at 1/500 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor[®] 488, ab150077), at 1/2000 dilution was used as the secondary antibody.

Negative control: NIH/3T3 (PMID:24324740).



Immunoprecipitation - Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

LINE-1 ORF1p was immunoprecipitated from 0.35 mg F9 (mouse embryonal carcinoma epithelial cell) whole cell lysate with ab216324 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab216324 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5,000 dilution

Lane 1: F9 whole cell lysate 10 µg (Input).

Lane 2: ab216324 IP in F9 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab216324 in F9 whole cell lysate.

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: 30 seconds.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-LINE-1 ORF1p antibody [EPR21844-108] (ab216324)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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