abcam

Product datasheet

Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free ab246317

Recombinant RabMAb

2 References 8 Images

Overview

Product name	Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free
Description	Rabbit monoclonal [EPR22227-6] to LINE-1 ORF1p - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, WB, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: NCCIT, MCF7 and K562 whole cell lysate. IHC-P: Human pancreatic cancer, colon cancer and lung cancer tissue. ICC/IF: NCCIT and MCF7 cells. Flow Cyt (intra): NCCIT cells. IP: NCCIT whole cell lysate.
General notes	ab246317 is the carrier-free version of **ab245249**. 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**.

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	EPR22227-6
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab246317 in the following tested applications.

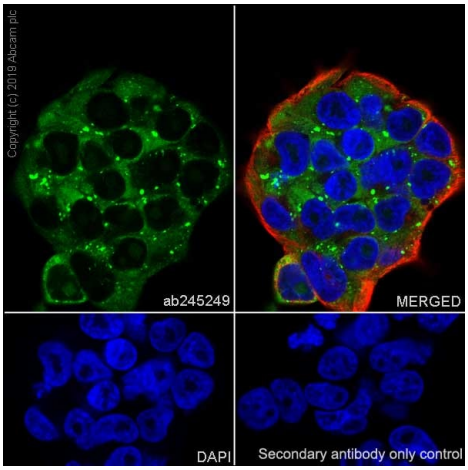
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

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.

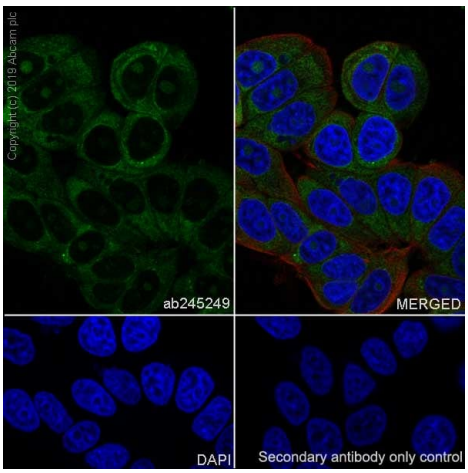
Images



Immunocytochemistry/ Immunofluorescence - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NCCIT (human pluripotent embryonic carcinoma epithelial cell) cells labeling LINE-1 ORF1p with **ab245249** 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 with punctate foci and nucleolar staining in NCCIT cells (PMID: 17562864; 15028673). The nuclear counter stain is DAPI (blue).
Counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red).
Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab245249**).



Immunocytochemistry/ Immunofluorescence - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labeling LINE-1 ORF1p with **ab245249** 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 with punctate foci and nucleolar staining in MCF7 cells (PMID: 15028673; 17562864). The nuclear counter stain is DAPI (blue).
Counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

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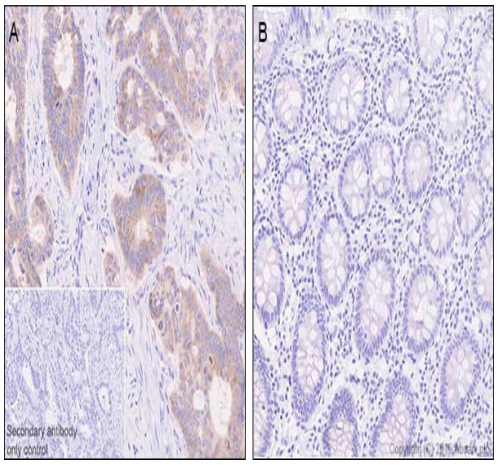
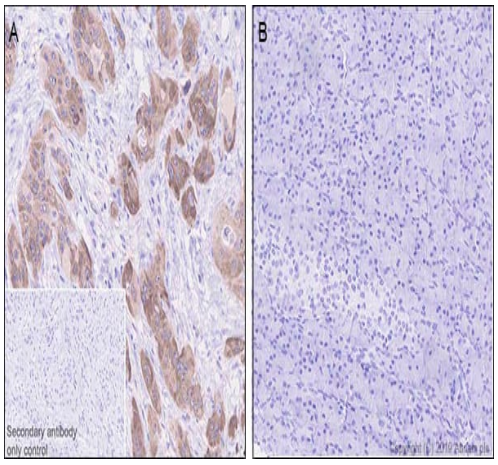


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Immunohistochemical analysis of paraffin-embedded human colon cancer (Panel A) and adjacent normal tissue (Panel B) labeling LINE-1 ORF1p with **ab245249** at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in colon cancer (Panel A) but negative in adjacent normal tissue (Panel B). (PMID:24607009). 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).

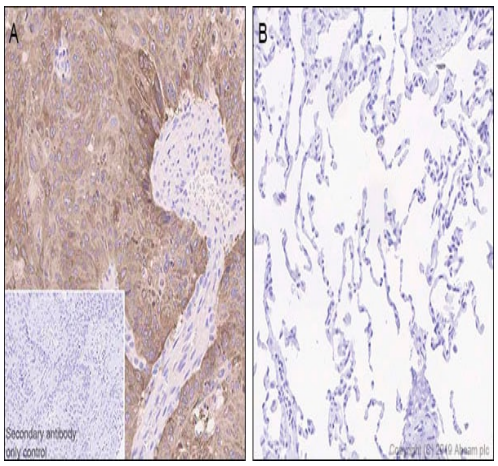
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab245249**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Immunohistochemical analysis of paraffin-embedded human pancreatic cancer (Panel A) and adjacent normal tissue (Panel B) labeling LINE-1 ORF1p with **ab245249** at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in pancreatic cancer (Panel A) but negative in adjacent normal tissue (Panel B). (PMID:24607009). 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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab245249**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Immunohistochemical analysis of paraffin-embedded human lung cancer (Panel A) and adjacent normal tissue (Panel B) labeling LINE-1 ORF1p with **ab245249** at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in lung cancer (Panel A) but negative in adjacent normal tissue (Panel B). (PMID:24607009). 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).

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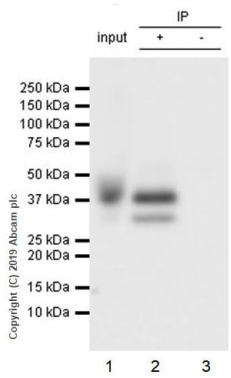


Immunoprecipitation - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

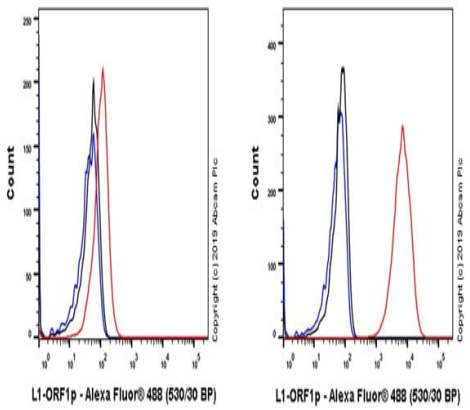
LINE-1 ORF1p was immunoprecipitated from 0.35 mg NCCIT (human pluripotent embryonic carcinoma epithelial cell) whole cell lysate with **ab245249** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab245249** at 1/2000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was for detection at 1/5000 dilution.

Lane 1: NCCIT whole cell lysate 10 µg (Input).
Lane 2: **ab245249** IP in NCCIT whole cell lysate.
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab245249** in NCCIT whole cell lysate.

The lower 33-kDa band is likely to be the truncated form (PMID: 29505568).

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: 1 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab245249**).

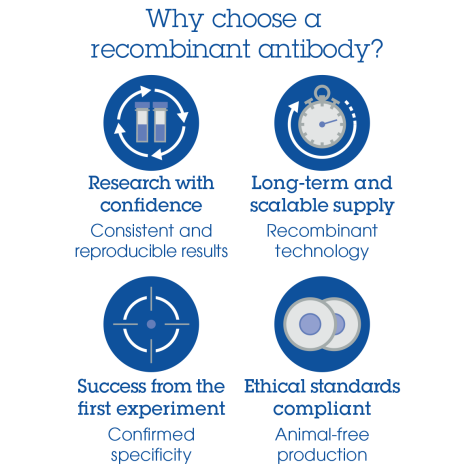


Flow Cytometry (Intracellular) - Anti-LINE-1 ORF1p antibody [EPR22227-6] - BSA and Azide free (ab246317)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HCT 116 (human colorectal carcinoma epithelial cell, Left panel) / NCCIT (human pluripotent embryonic carcinoma epithelial cell, Right panel) cell lines labeling LINE-1 ORF1p with **ab245249** 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.

The expression level on HCT 116 (low) and NCCIT (high) is consistent with literature (PMID: 27016617).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab245249**).



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