


## Product datasheet

# Alexa Fluor® 647 Anti-PIN4 antibody [EPR10033] ab225213

Recombinant RabMAb

2 Images

### Overview

Product name	Alexa Fluor® 647 Anti-PIN4 antibody [EPR10033]
Description	Alexa Fluor® 647 Rabbit monoclonal [EPR10033] to PIN4
Host species	Rabbit
Conjugation	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
Tested applications	<b>Suitable for:</b> ICC/IF
Species reactivity	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: HeLa cells
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® patents</a>.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or</p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR10033
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab225213 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

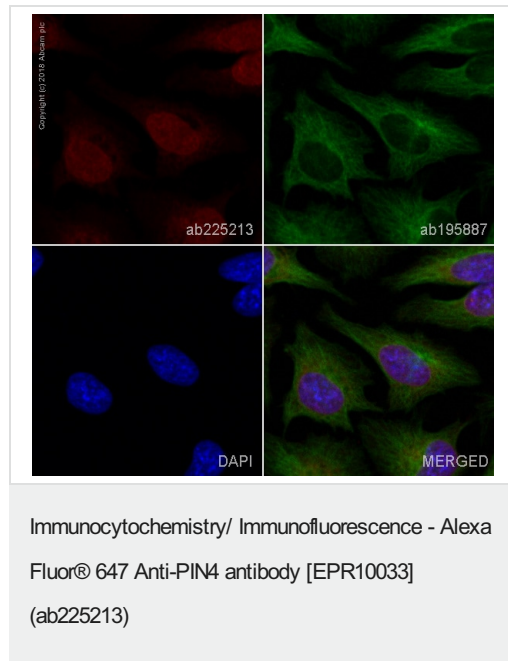
Application	Abreviews	Notes
ICC/IF		1/100. This product gave a positive signal in HeLa cells fixed with 100% methanol (5 min)

## Target

<b>Function</b>	Isoform 1 is involved as a ribosomal RNA processing factor in ribosome biogenesis. Binds to tightly bent AT-rich stretches of double-stranded DNA. Isoform 2 binds to double-stranded DNA.
<b>Tissue specificity</b>	Isoform 2 is much more stable than isoform 1 (at protein level). Ubiquitous. Isoform 1 and isoform 2 are expressed in kidney, liver, blood vessel, brain, mammary gland, skeletal muscle, small intestine and submandibularis. Isoform 1 transcripts are much more abundant than isoform 2 in each tissue analyzed.
<b>Sequence similarities</b>	Belongs to the ppiC/parvulin rotamase family. PIN4 subfamily. Contains 1 PpiC domain.
<b>Domain</b>	The PPlase domain enhances mitochondrial targeting.
<b>Post-translational modifications</b>	Phosphorylated. Isoform 1 phosphorylation occurs both in the nucleus and the cytoplasm. Isoform 1 phosphorylation at Ser-19 does not affect its PPlase activity but is required for nuclear localization, and the dephosphorylation is a prerequisite for the binding to DNA. The unphosphorylated isoform 1 associates with the pre-rRNP complexes in the nucleus. Isoform 2 is sumoylated by SUMO2 and SUMO3.
<b>Cellular localization</b>	Mitochondrion. Mitochondrion matrix. Imported in a time- and membrane potential-dependent

manner to the mitochondrial matrix, but without concomitant processing of the protein. Directed to mitochondria by a novel N-terminal domain that functions as non-cleavable mitochondrial targeting peptide and Nucleus > nucleolus. Cytoplasm > cytoskeleton > spindle. Cytoplasm. Colocalizes in the nucleolus during interphase and on the spindle apparatus during mitosis with NPM1.

## Images



ab225213 staining PIN4 in HeLa (human epithelial cell line from cervix adenocarcinoma) cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% 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 ab225213 at 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue)

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

Why choose a recombinant antibody?

<p><b>Research with confidence</b> Consistent and reproducible results</p>	<p><b>Long-term and scalable supply</b> Recombinant technology</p>
<p><b>Success from the first experiment</b> Confirmed specificity</p>	<p><b>Ethical standards compliant</b> Animal-free production</p>

Alexa Fluor® 647 Anti-PIN4 antibody [EPR10033] (ab225213)

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

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- We provide support in Chinese, English, French, German, Japanese and Spanish
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- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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