

Product datasheet

Anti-PRC1 (phospho T481) antibody [EP1514Y] ab62366

Recombinant RabMAb

[6 References](#) [3 Images](#)

Overview

Product name	Anti-PRC1 (phospho T481) antibody [EP1514Y]
Description	Rabbit monoclonal [EP1514Y] to PRC1 (phospho T481)
Host species	Rabbit
Tested applications	Suitable for: WB, Dot blot Unsuitable for: Flow Cyt or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa cells and HeLa whole cell lysate (ab150035).
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> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

Clone number EP1514Y
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab62366 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
WB		1/500. Detects a band of approximately 72 kDa (predicted molecular weight: 72 kDa).
Dot blot		Use at an assay dependent concentration.

Application notes Is unsuitable for Flow Cyt or IP.

Target

Function Cross-links antiparrallel microtubules at an average distance of 35 nM. Essential for controlling the spatiotemporal formation of the midzone and successful cytokinesis. Required for KIF14 localization to the central spindle and midbody.

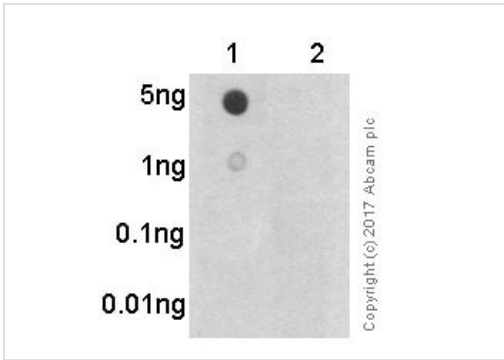
Sequence similarities Belongs to the MAP65/ASE1 family.

Domain Microtubule binding occurs via a basic patch in the central spectrin-like domain and requires also the unstructured C-terminal domain.

Post-translational modifications Phosphorylation by CDK1 in early mitosis holds PRC1 in an inactive monomeric state, during the metaphase to anaphase transition, PRC1 is dephosphorylated, promoting interaction with KIF4A, which then translocates PRC1 along mitotic spindles to the plus ends of antiparallel interdigitating microtubules. Dephosphorylation also promotes MT-bundling activity by allowing dimerization.

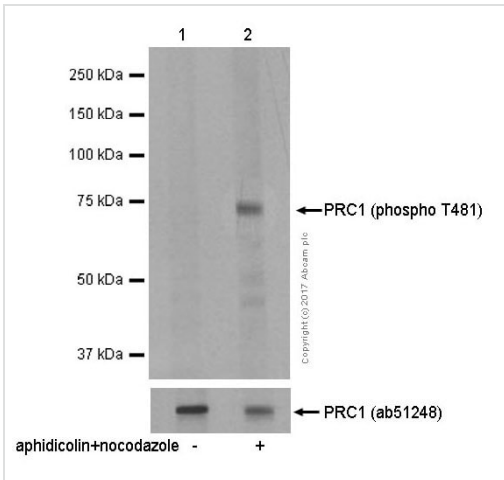
Cellular localization Nucleus. Cytoplasm. Cytoplasm > cytoskeleton > spindle pole. Predominantly localized to the nucleus of interphase cells. During mitosis becomes associated with the mitotic spindle poles and localizes with the cell midbody during cytokinesis.

Images



Dot Blot - Anti-PRC1 (phospho T481) antibody [EP1514Y] (ab62366)

Primary ab dilution 1:1000 dilution. Secondary ab description and code (ab id) Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**). Secondary ab dilution 1:100,000 dilution. Blocking buffer and concentration 5% NFDm/TBST. Lane 1: PRC1 (pT481) phospho peptide Lane 2: PRC1 non-phospho peptide. Exposure time 3 minutes



Western blot - Anti-PRC1 (phospho T481) antibody [EP1514Y] (ab62366)

All lanes : Anti-PRC1 (phospho T481) antibody [EP1514Y] (ab62366) at 1/500 dilution

Lane 1 : HeLa cell lysates (untreated)

Lane 2 : HeLa cell lysates treated with aphidicolin + nocodazole

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : goat anti-rabbit HRP labeled, at 1/2000 dilution

Predicted band size: 72 kDa

Observed band size: 72 kDa

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-PRC1 (phospho T481) antibody [EP1514Y] (ab62366)

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

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