

PRC1(Phospho Thr481) pAb

CatalogNo: YP1213

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, ELISA

MW

- 72kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IHC 1:50-300

ELISA 5000-1:20000

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthetic Phospho peptide from human protein at AA range: 481

Specificity The antibody detects endogenous PRC1 Phospho occurs at Thr481. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): PNtPG

| Target Information

Gene name PRC1

Protein Name Protein regulator of cytokinesis 1

Organism	Gene ID	UniProt ID
Human	9055 ;	O43663 ;
Mouse		Q99K43 ;

Cellular Localization

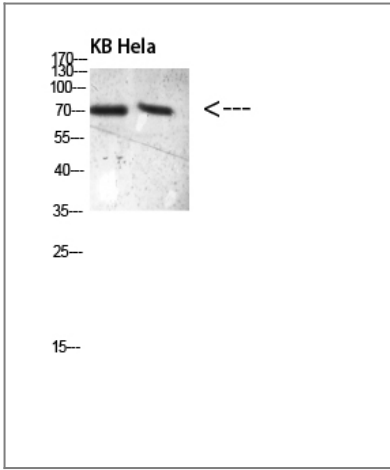
Nucleus . Cytoplasm. Cytoplasm, cytoskeleton, spindle pole . Midbody . Chromosome . Colocalized with KIF20B in the nucleus of bladder carcinoma cells at the interphase. Colocalized with KIF20B in bladder carcinoma cells at prophase, metaphase, early anaphase, at the midzone in late anaphase and at the contractile ring in telophase (PubMed:17409436). 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. Co-localizes with PRC1 in early mitosis and at the spindle midzone from anaphase B to telophase (PubMed:15297875, PubMed:15625105). .

Tissue specificity Overexpressed in bladder cancer cells (PubMed:17409436).

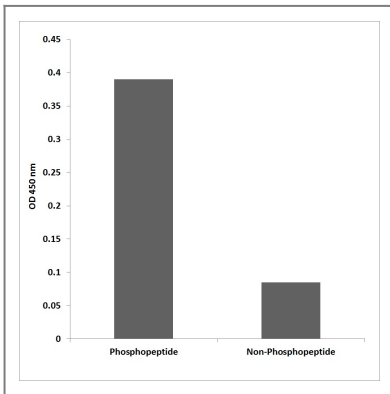
Function

Function:KIF4A translocates PRC1 to the plus ends of interdigitating spindle microtubules during the metaphase to anaphase transition, an essential step for the formation of an organized central spindle midzone and midbody and for successful cytokinesis. Required for KIF14 localization to the central spindle and midbody. Acts as a microtubule-binding and bundling protein both in vivo and vitro. May function as an in vivo cyclin-CDK substrate.,PTM:Phosphorylated; very weak in G1/S phase cells. Much higher levels of phosphorylation are detected at later cell cycle phases, reaching a maximum during mitosis.,similarity:Belongs to the MAP65/ASE1 family.,subcellular location: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.,subunit:Interacts with the C-terminal Rho-GAP domain and the basic region of RACGAP1. The interaction with RACGAP1 inhibits its GAP activity towards Cdc42 in vitro, which may be required for maintaining normal spindle morphology. Interacts separately via its N-terminal region with the C-terminus of CENPE, KIF4A and KIF23 during late mitosis. Interacts with KIF14 and KIF20A.,

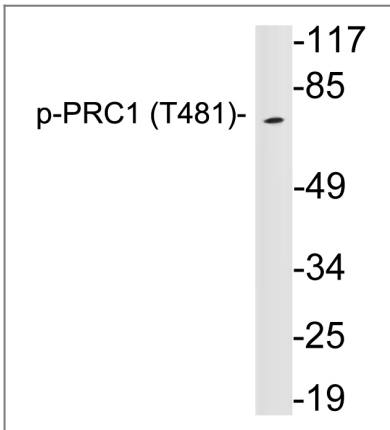
| Validation Data



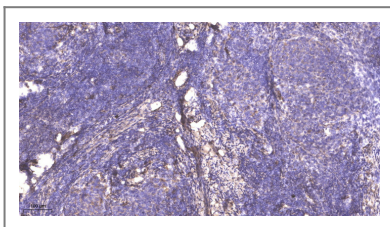
Western blot analysis of 293T VEC lysate, antibody was diluted at 500. Secondary antibody (catalog#:RS0002) was diluted at 1:20000



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PRC1 (Phospho-Thr481) Antibody



Western blot analysis of lysates from HeLa cells, using p-PRC1 (Phospho-Thr481) antibody.



Immunohistochemical analysis of paraffin-embedded human cervical carcinoma. 1, Antibody was diluted at 1:200 (4°C overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).

Contact information

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**PRC1(Phospho
Thr481) pAb**

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