

**Anti-PRC1 Picoband Antibody**  
**Catalog # ABO12500****Specification**

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**Anti-PRC1 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O43663</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Protein regulator of cytokinesis 1 (PRC1) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-PRC1 Picoband Antibody - Additional Information**

**Gene ID** 9055

**Other Names**

Protein regulator of cytokinesis 1 {ECO:0000312|HGNC:HGNC:9341}, PRC1 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=9341](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=9341))

**Calculated MW**

71607 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Nucleus . Cytoplasm. Cytoplasm, cytoskeleton, spindle pole. Midbody . 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. .

**Tissue Specificity**

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

**Protein Name**

Protein regulator of cytokinesis 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human PRC1 recombinant protein (Position: M1-E233). Human PRC1 shares 85% amino acid (aa) sequence identity with mouse PRC1.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-PRC1 Picoband Antibody - Protein Information**

**Name** PRC1 ([HGNC:9341](#))

**Function**

Key regulator of cytokinesis that 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. Required to recruit PLK1 to the spindle. Stimulates PLK1 phosphorylation of RACGAP1 to allow recruitment of ECT2 to the central spindle. Acts as an oncogene for promoting bladder cancer cells proliferation, apoptosis inhibition and carcinogenic progression (PubMed:<a href="http://www.uniprot.org/citations/17409436" target="\_blank">17409436</a>).

**Cellular Location**

Nucleus. Cytoplasm. Cytoplasm, cytoskeleton, spindle pole. Midbody. Chromosome.  
Note=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 Location**

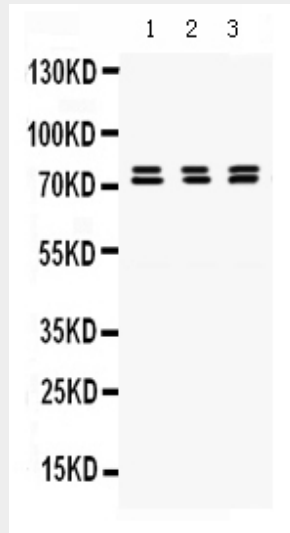
Overexpressed in bladder cancer cells (PubMed:17409436).

**Anti-PRC1 Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-PRC1 Picoband Antibody - Images



Anti- PRC1 Picoband antibody, ABO12500, Western blotting All lanes: Anti PRC1 (ABO12500) at 0.5ug/ml Lane 1: MCF-7 Whole Cell Lysate at 40ug Lane 2: SGC Whole Cell Lysate at 40ug Lane 3: HELA Whole Cell Lysate at 40ug Predicted bind size: 75KD, 80KD Observed bind size: 75KD, 80KD

### Anti-PRC1 Picoband Antibody - Background

Protein Regulator of cytokinesis 1 (PRC1) is a protein that in humans is encoded by the PRC1 gene and is involved in cytokinesis. This gene is mapped to chromosome 15q26.1 based on an alignment of the PRC1 sequence with the genomic sequence. PRC1 protein is expressed at relatively high levels during S and G2/M phases of the cell cycle before dropping dramatically after mitotic exit and entrance into G1 phase. It is located in the nucleus during interphase, becomes associated with the mitotic spindle in a highly dynamic manner during anaphase, and localizes to the cell midbody during cytokinesis. And this protein has been shown to be a substrate of several cyclin-dependent kinases (CDKs). It is necessary for polarizing parallel microtubules and concentrating the factors responsible for contractile ring assembly. Alternative splicing results in multiple transcript variants.