Product Name: PRC1 Rabbit Polyclonal Antibody
Catalog #: APRab16463

Summary

Production Name	PRC1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PRC1
Alternative Names	Protein regulator of cytokinesis 1
Gene ID	9055.0
SwissProt ID	O43663.Synthetic peptide from human protein at AA range: 460-520

Application

Dilution Ratio	WB 1:500-2000 ELISA 2000-20000
Molecular Weight	72kD

Background

This gene encodes a protein that is involved in cytokinesis. The protein is present at high levels during the S and G2/M

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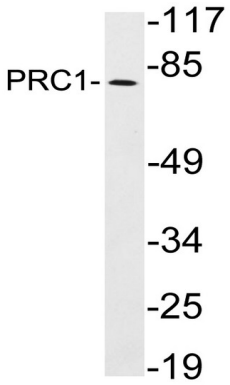
phases of mitosis but its levels drop dramatically when the cell exits mitosis and enters the G1 phase. It is located in the nucleus during interphase, becomes associated with mitotic spindles in a highly dynamic manner during mitosis, and localizes to the cell mid-body during cytokinesis. This protein 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. [provided by RefSeq, Jun 2012],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.,

Research Area

Image Data



Western blot analysis of lysates from HeLa cells, using PRC1 antibody.

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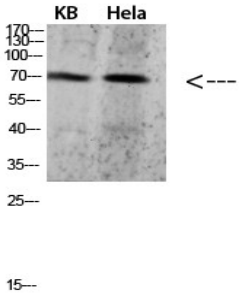

Western blot analysis of 293T Hela 3T3 lysate, antibody was diluted at 500. Secondary antibody was diluted at 1:20000

Note

For research use only.