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Recombinant Anti-PRC1 Rabbit mAb

Catalog # AP94865

Product Information

Application	WB, IHC, FC, IP, IF/IC
Primary Accession	O43663
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal
Calculated MW	71607

Additional Information

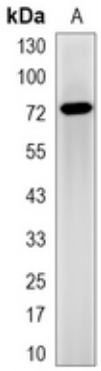
Gene ID	9055
Other Names	Protein regulator of cytokinesis 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human PRC1 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50 IP~~N/A IF/IC~~N/A
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

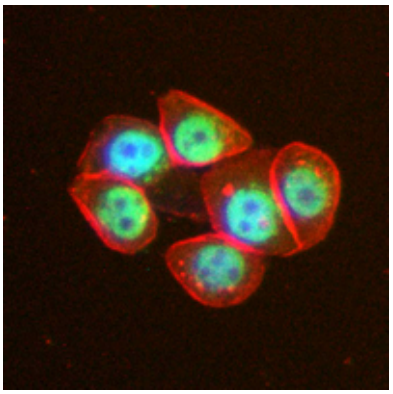
Name	PRC1 (HGNC:9341)
Function	Key regulator of cytokinesis that cross-links antiparrallel microtubules at an average distance of 35 nM. Essential for controlling the spatiotemporal formation of the midzone and successful cytokinesis. Required for KIF14 localization to the central spindle and midbody. 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:17409436).
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).

Images



Western blot analysis of PRC1 expression in HeLa (A) whole cell lysates. (Predicted band size: 72 kD; Observed band size: 72 kD)



Immunofluorescent analysis of PRC1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).