For Research Use Only

PRC1 Polyclonal antibody

Catalog Number:15617-1-AP Featured Product 19 Publications

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Basic Information

Catalog Number:
15617-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG8028

GenBank Accession Number:
BC003138

GeneID (NCBI):
9055

UNIPROT ID:
O43663

Full Name:
protein regulator of cytokinesis 1

Calculated MW:
72 kDa

Observed MW:
66 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:8000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, IP, ELISA

Cited Applications:
WB, IHC, CoIP, IF

Species Specificity:
human, rat

Cited Species:
human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : MCF-7 cells, HEK-293 cells, HeLa cells, K-562 cells, Raji cells, SH-SY5Y cells, C6 cells

IP : HEK-293 cells,

IHC : human breast cancer tissue,

IF/ICC : HepG2 cells,

Background Information

PRC1 (protein regulator of cytokinesis 1) is a microtubule-bundling protein that is involved in cytokinesis. Depletion of PRC1 leads to failed cytokinesis. PRC1 is located in the nucleus during interphase, and becomes associated with mitotic spindles in a highly dynamic manner during mitosis, and localizes to the cell mid-body during cytokinesis. PRC1 is a substrate of CDK1 and it was assumed that CDK1 phosphorylation blocks its activity during metaphase. Three isoforms of PRC1 exist due to the alternative splicing, with predictive molecular weight of 71.6 kDa, 70.2 kDa and 66.2 kDa, respectively. The dual bands between 66-72 kDa detected by this antibody may represent different forms of PRC1.

Notable Publications

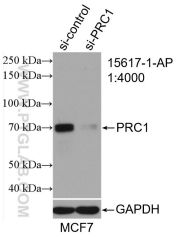
Author	Pubmed ID	Journal	Application
Jing Li	34531368	Nat Commun	WB,IHC
Mansour Aboelenain	34636397	Development	WB
Tianyu Wu	36395215	Science	IF

Storage

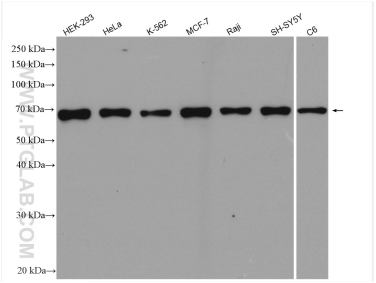
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

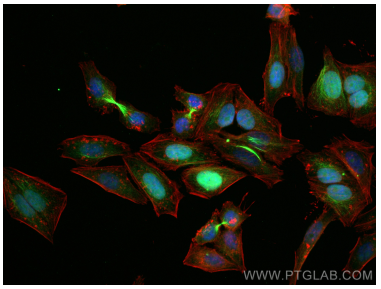
Selected Validation Data



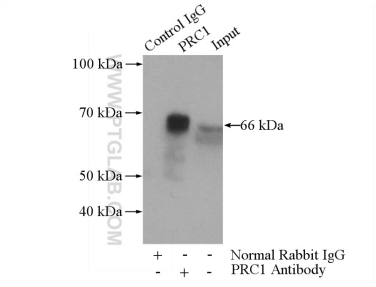
WB result of PRC1 antibody (15617-1-AP; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PRC1 transfected MCF-7 cells.



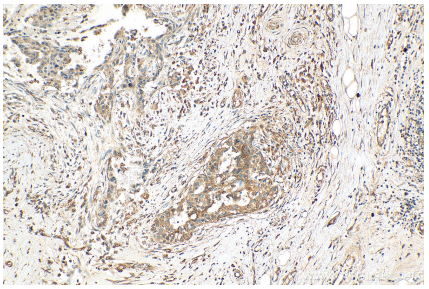
Various lysates were subjected to SDS PAGE followed by western blot with 15617-1-AP (PRC1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



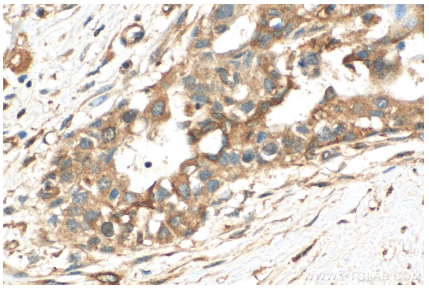
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using PRC1 antibody (15617-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



IP result of anti-PRC1 (IP:15617-1-AP, 4ug; Detection:15617-1-AP 1:300) with HEK-293 cells lysate 1480ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 15617-1-AP (PRC1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 15617-1-AP (PRC1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).