10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal Antibody

**Rabbit monoclonal antibody**
**Catalog # AGI2432**

## Specification

### KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal Antibody - Product Information

| | |
|---|---|
| Application | **WB, FC, ICC** |
| Primary Accession | O43663 |
| Reactivity | **Rat, Human, Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **Predicted, 72 kDa; observed, 72 kDa KDa** |
| Gene Name | **PRC1** |
| Aliases | **PRC1; Protein Regulator Of Cytokinesis 1; ASE1; MAP65; Anaphase Spindle Elongation 1 Homolog (S. Cerevisiae); Anaphase Spindle Elongation 1 Homolog; Protein Regulating Cytokinesis 1** |
| Immunogen | **A synthesized peptide derived from human PRC1** |

### KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal Antibody - Additional Information

| | |
|---|---|
| Gene ID | **9055** |

**Other Names**
Protein regulator of cytokinesis 1 {ECO:0000312|HGNC:HGNC:9341}, PRC1 (<a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=9341" target="_blank">HGNC:9341</a>)

### KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal 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.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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).

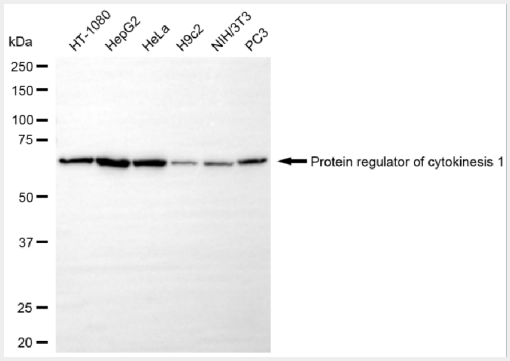
**Tissue Location**
Overexpressed in bladder cancer cells (PubMed:17409436).

## KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal Antibody - Protocols

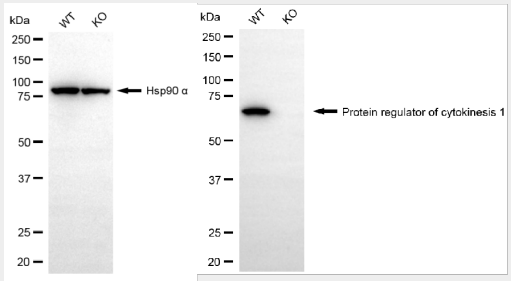
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## KO-Validated Anti-Protein Regulator Of Cytokinesis 1 Rabbit Monoclonal Antibody - Images



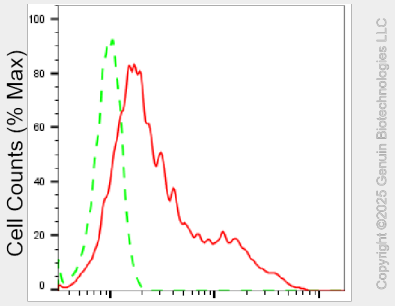

Western blotting analysis using anti-protein regulator of cytokinesis 1 antibody (Cat#AGI2432). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-protein regulator of cytokinesis 1 antibody (Cat#AGI2432, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.




Western blotting analysis using anti-protein regulator of cytokinesis 1 antibody (Cat#AGI2432).

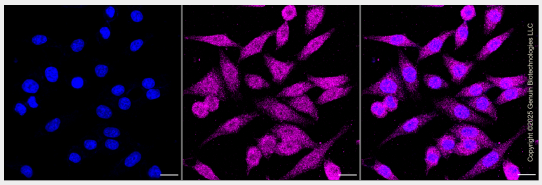
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Protein regulator of cytokinesis 1 expression in wild-type (WT) and protein regulator of cytokinesis 1 (PRC1) knockout (KO) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-protein regulator of cytokinesis 1 antibody (Cat#AGI2432, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.




Protein regulator of cytokinesis 1-Alexa Fluor® 647

Flow cytometric analysis of Protein regulator of cytokinesis 1 expression in HepG2 cells using anti-Protein regulator of cytokinesis 1 antibody (Cat#AGI2432, 1:2,000). Green, isotype control; red, Protein regulator of cytokinesis 1.



Immunocytochemical staining of HepG2 cells with anti-Protein regulator of cytokinesis 1 antibody (Cat#AGI2432, 1:1,000). Nuclei were stained blue with DAPI; Protein regulator of cytokinesis 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.