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PRC1 Antibody (Center E186) Blocking Peptide

Synthetic peptide
Catalog # BP7317d

Specification

PRC1 Antibody (Center E186) Blocking Peptide - Product Information

Primary Accession O43663

PRC1 Antibody (Center E186) Blocking Peptide - Additional Information

Gene ID 9055

Other Names
Protein regulator of cytokinesis 1, PRC1 {ECO:0000312|EMBL:AAC026881}

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PRC1 Antibody (Center E186) Blocking Peptide - 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).

PRC1 Antibody (Center E186) Blocking Peptide - Protocols

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

- Blocking Peptides

PRC1 Antibody (Center E186) Blocking Peptide - Images

PRC1 Antibody (Center E186) Blocking Peptide - Background

PRC1 is involved in cytokinesis. The protein is at high level during S and G2/M and drop dramatically after cell exit mitosis and enter G1. It 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. This protein has been shown to be a substrate of several cyclin-dependent kinases (CDKs).

PRC1 Antibody (Center E186) Blocking Peptide - References

Murphy,L.A., Wilkerson,D.C. Exp. Cell Res. 314 (11-12), 2224-2230 (2008)Shimo,A., Nishidate,T. Cancer Sci. 98 (2), 174-181 (2007)Zhu,C., Lau,E. Proc. Natl. Acad. Sci. U.S.A. 103 (16), 6196-6201 (2006)