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P100 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AW5052

Specification

P100 Antibody - Product Information

Application	**WB,E**
Primary Accession	Q9ULW0
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**H=86 KDa**
Isotype	**Mouse IgG1**
Antigen Source	**HUMAN**

P100 Antibody - Additional Information

Gene ID 22974

Antigen Region
Multiple

Other Names
TPX2; C20orf1; C20orf2; DIL2; HCA519; Targeting protein for Xklp2; Differentially expressed in cancerous and non-cancerous lung cells 2; Hepatocellular carcinoma-associated antigen 519; Protein fls353; Restricted expression proliferation-associated protein 100

Dilution
WB~~1:1000

Target/Specificity
This monoclonal antibody is generated from mice immunized with a collection of antigenic peptides from different regions of P100.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
P100 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

P100 Antibody - Protein Information

Name TPX2

Synonyms C20orf1, C20orf2, DIL2, HCA519

Function
Spindle assembly factor required for normal assembly of mitotic spindles. Required for normal assembly of microtubules during apoptosis. Required for chromatin and/or kinetochore dependent microtubule nucleation. Mediates AURKA localization to spindle microtubules (PubMed:18663142, PubMed:19208764, PubMed:37728657). Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation (PubMed:18663142, PubMed:19208764). TPX2 is inactivated upon binding to importin-alpha (PubMed:26165940). At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activate AURKA kinase and stimulate local microtubule nucleation (PubMed:26165940).

Cellular Location
Nucleus. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Note=During mitosis it is strictly associated with the spindle pole and with the mitotic spindle, whereas during S and G2, it is diffusely distributed throughout the nucleus. Is released from the nucleus in apoptotic cells and is detected on apoptotic microtubules.

Tissue Location
Expressed in lung carcinoma cell lines but not in normal lung tissues

P100 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

P100 Antibody - Images

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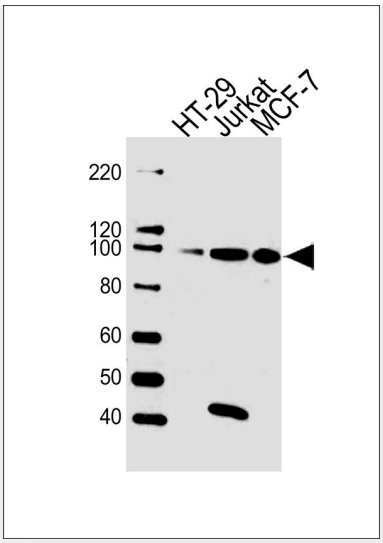

Western blot analysis of lysates from HT-29,Jurkat,MCF-7 cell line (from left to right), using P100 Antibody(Cat. #AW5052). AW5052 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.

P100 Antibody - References

Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. Breast Cancer Res Treat, 2010 May 28. PMID 20508983.
A cancer-associated aurora A mutant is mislocalized and misregulated due to loss of interaction with TPX2. Bibby RA, et al. J Biol Chem, 2009 Nov 27. PMID 19801554.
Association between genetic variants in VEGF, ERCC3 and occupational benzene haematotoxicity. Hosgood HD 3rd, et al. Occup Environ Med, 2009 Dec. PMID 19773279.
Overexpression of the receptor for hyaluronan-mediated motility, correlates with expression of microtubule-associated protein in human oral squamous cell carcinomas. Shigeishi H, et al. Int J Oncol, 2009 Jun. PMID 19424574.
Dynamic release of nuclear RanGTP triggers TPX2-dependent microtubule assembly during the apoptotic execution phase. Moss DK, et al. J Cell Sci, 2009 Mar 1. PMID 19208764.