

P100 Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM1110b

Product Information

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| Application | WB, E |
| Primary Accession | Q9ULW0 |
| Reactivity | Human, Mouse |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | Mouse IgG1 |
| Clone Names | 19AT953.286.93 |
| Calculated MW | 85653 |
| Antigen Region | Multiple |

Additional Information

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|---------------------------|---|
| Gene ID | 22974 |
| Other Names | Targeting protein for Xklp2, Differentially expressed in cancerous and non-cancerous lung cells 2, DIL-2, Hepatocellular carcinoma-associated antigen 519, Hepatocellular carcinoma-associated antigen 90, Protein fls353, Restricted expression proliferation-associated protein 100, p100, TPX2, C20orf1, C20orf2, DIL2, HCA519 |
| Target/Specificity | This monoclonal antibody is generated from mice immunized with a collection of antigenic peptides from different regions of P100. |
| Dilution | WB~~1:500~1000 E~~Use at an assay dependent concentration. |
| 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. |

Protein Information

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| Name | TPX2 |
| Synonyms | C20orf1, C20orf2, DIL2, HCA519 |

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| 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 |

References

Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. Breast Cancer Res Treat, 2010 May 28. PMID 20508983.

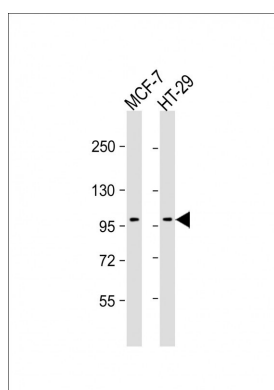
A cancer-associated aurora A mutant is mislocalized and misregulated due to loss of interaction with TPX2. Bibby RA, et al. J Biol Chem, 2009 Nov 27. PMID 19801554.

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.

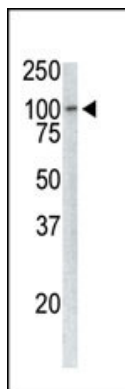
Dynamic release of nuclear RanGTP triggers TPX2-dependent microtubule assembly during the apoptotic execution phase. Moss DK, et al. J Cell Sci, 2009 Mar 1. PMID 19208764.

Images



All lanes : Anti-P100 Antibody at 1:1000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: HT-29 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 86 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western analysis of extracts from Jurkat cells using P100 antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.