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P100 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1110a

Product Information

Application	WB, E
Primary Accession	Q9ULW0
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	19AT738.292
Calculated MW	85653

Additional Information

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 four KLH conjugated synthetic peptides selected from human P100.
Dilution	WB~~1:500~1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal 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

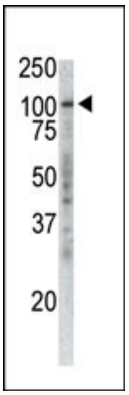
Name	TPX2
Synonyms	C20orf1, C20orf2, DIL2, HCA519
Function	Spindle assembly factor required for normal assembly of mitotic spindles.

	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

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



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'.