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

TPX2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8582b

Product Information

Application	WB, E
Primary Accession	Q9ULW0
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1696CT464.66.9
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 TPX2 antibody is generated from a mouse immunized with a recombinant protein between 1-531 amino acids from the human TPX2.
Dilution	WB~~1:2000 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	TPX2 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

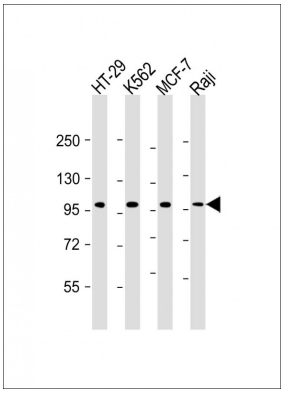
Background

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. Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation.

References

Manda R.,et al.Genomics 61:5-14(1999).
Zhang Y.,et al.Cytogenet. Cell Genet. 84:182-183(1999).
Nezu J.,et al.Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
Wang Y.,et al.J. Immunol. 169:1102-1109(2002).
Deloukas P.,et al.Nature 414:865-871(2001).

Images



All lanes : Anti-TPX2 Antibody at 1:2000 dilution Lane 1: HT-29 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: MCF-7 whole cell lysate Lane 4: Raji 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.