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

TPX2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14553c

Product Information

Application	WB, E
Primary Accession	Q9ULW0
Other Accession	A6H6Z7, NP_036244.2
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34505
Calculated MW	85653
Antigen Region	419-448

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 rabbits immunized with a KLH conjugated synthetic peptide between 419-448 amino acids from the Central region of human TPX2.
Dilution	WB~~1:1000 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 A column, followed by peptide affinity purification.
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 (Center) 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

TPX2 is a 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

Olson, J.E., et al. Breast Cancer Res. Treat. (2010) In press :
Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)
Bibby, R.A., et al. J. Biol. Chem. 284(48):33177-33184(2009)
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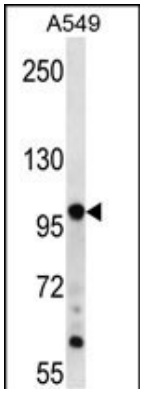
Moss, D.K., et al. J. Cell. Sci. 122 (PT 5), 644-655 (2009) :

Images



TPX2 Antibody (Center) (Cat. #AP14553c) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the TPX2 antibody detected the TPX2 protein (arrow).

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