

**TPX2 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10574****Specification**

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**TPX2 Antibody - Product Information**

Application	WB, IP
Primary Accession	<a href="#">O9ULW0</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	85653

**TPX2 Antibody - Additional Information****Gene ID** 22974

Application &amp; Usage

**Western blotting (1:500 - 1:2000) and Immunoprecipitation. However, the optimal concentrations should be determined individually. The antibody recognizes the human TPX2. Reactivity to other species has not been tested.****Other Names**

TPX2, TPX-2, Microtubule-associated protein TPX2 homolog, DIL2, DIL-2, Differentially expressed in lung cells, HCA519, Hepatocellular carcinoma-associated antigen 519, REPP86, Restricted expression proliferatio

**Target/Specificity**

TPX2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µl purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

TPX2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TPX2 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:<a href="http://www.uniprot.org/citations/18663142" target="\_blank">18663142</a>, PubMed:<a href="http://www.uniprot.org/citations/19208764" target="\_blank">19208764</a>, PubMed:<a href="http://www.uniprot.org/citations/37728657" target="\_blank">37728657</a>). Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation (PubMed:<a href="http://www.uniprot.org/citations/18663142" target="\_blank">18663142</a>, PubMed:<a href="http://www.uniprot.org/citations/19208764" target="\_blank">19208764</a>). TPX2 is inactivated upon binding to importin-alpha (PubMed:<a href="http://www.uniprot.org/citations/26165940" target="\_blank">26165940</a>). At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activate AURKA kinase and stimulates local microtubule nucleation (PubMed:<a href="http://www.uniprot.org/citations/26165940" target="\_blank">26165940</a>).

**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

**TPX2 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 Cytometry](#)
- [Cell Culture](#)

**TPX2 Antibody - Images****TPX2 Antibody - Background**

TPX2 (targeting protein for Xklp2) is a microtubule-associated protein involved in targeting the motor protein Xklp2 to microtubules. Ran-GTP activates TPX2 for the chromatin-induced microtubule assembly during M phase. Aurora-A kinase associates with TPX2 at the spindle

apparatus and may regulate TPX2 via phosphorylation during the spindle assembly. TPX2 appears to play a structural role in spindle formation. TPX2 activates Eg2 in a microtubule-dependent manner by stimulating the phosphorylation and kinase activity of Eg2. TPX2 is inactivated by binding to importin  $\alpha$ , a nuclear import factor. Finally, the suppression of TPX2 with RNA interference causes defects in microtubule organization during mitosis.