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TPX2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10574

Specification

TPX2 Antibody - Product Information

Application	**WB, IP**
Primary Accession	Q9ULW0
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**85653**

TPX2 Antibody - Additional Information

Gene ID 22974

Application & 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: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

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 Cytomety
- 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 microbutule 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 a, a nuclear import factor. Finally, the suppression of TPX2 with RNA interference causes defects in microtubule organization during mitosis.