

# **TPX2 Polyclonal Antibody**

**Catalog # AP72895** 

# **Specification**

## **TPX2 Polyclonal Antibody - Product Information**

Application
Primary Accession
Reactivity
Host
Clonality

WB, IHC-P
O9ULWO
Human, Mouse
Rabbit
Polyclonal

# **TPX2 Polyclonal Antibody - Additional Information**

#### **Gene ID 22974**

## **Other Names**

TPX2; C20orf1; C20orf2; DIL2; HCA519; Targeting protein for Xklp2; Differentially expressed in cancerous and non-cancerous lung cells 2; DIL-2; Hepatocellular carcinoma-associated antigen 519; Protein fls353; Restricted expression prolifera

## **Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~ $\sim$ N/A

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions**

-20°C

## **TPX2 Polyclonal 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 stimulate 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**

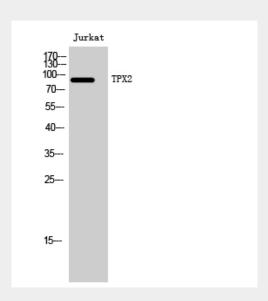
Expressed in lung carcinoma cell lines but not in normal lung tissues

## **TPX2 Polyclonal 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

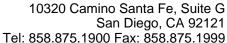
## **TPX2 Polyclonal Antibody - Images**



Western Blot analysis of Jurkat cells using TPX2 Polyclonal Antibody. Secondary antibody was diluted at 1:20000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).

# **TPX2 Polyclonal Antibody - 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 (PubMed:18663142, PubMed:19208764). 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 activates AURKA kinase and stimulates local microtubule nucleation (PubMed:26165940).