# TPX2

# Mouse Anti-Human TPX2 microtubule-associated homolog/Targeting Protein of XKLP2 Clone 18D5 mAb

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| **Catalog No.** | CSI14462<br>CSI14463 | **Quantity:** | 25 µg<br>100 µg |

**Alternate Names:** Targeting protein for Xklp1, restricted expression proliferation associated protein p100, differentially expressed in cancer and non-cancerous lung cells 2 (DIL2)

**Description:** The TPX2 protein, also known as targeting protein for Xklp1, restricted expression proliferation associated protein p100, and differentially expressed in cancer and non-cancerous lung cells protein 2 (DIL2), is a 100 kD nuclear protein that contains two coiled-coil domains. The TPX2 protein is strictly associated with spindle pole and mitotic spindle during mitosis. In the G2/S position of the cell cycle, TPX2 is diffusely distributed throughout nucleus. TPX2 has been shown to be highly expressed in lung carcinomas cell lines, but not in normal lung tissues. TPX2 is thought to be required for the Ran-GTP dependent assembly of microtubules around chromosomes required to generate stable bipolar spindle with overlapping anti-parallel microtubule arrays and may also be involved in targeting Aurora-A kinase to the mitotic spindle. TPX2 has been shown to interact with a large number of proteins including serine/threonine protein kinase 6, ribosomal protein 6, Bop-1, α-tubulin, and nucleolin among others. TPX2 can be modified by phosphorylation on serine 738. The 18D5 monoclonal antibody recognizes human TPX2 and has been shown to be useful for Western blotting.

**Concentration:** 0.5 mg/ml

**Gene ID:** 22974

**Structure:** Nuclear protein, contains two coiled-coil domains, approximately 100 kD.

**Distribution:** Nuclear, during mitosis strictly associated with spindle pole and mitotic spindle. In G2/S cell cycle, diffusely distributed throughout nucleus. Highly expressed in lung carcinomas cell lines, but not in normal lung tissues.

**Host:** Mouse

**Immunogen:** Amino Acid: 1-220 of human TPX2

**Isotype:** IgG1, κ

**Clone:** 18D5

**Function:** This protein is exclusively expressed in proliferating cells from the G1/S transition to the end of cytokinesis. Thought to be required for the Ran-GTP dependent assembly of microtubules around chromosomes required to generate stable bipolar spindle with overlapping anti-parallel microtubule arrays and may also be involved in targeting Aurora-A kinase to the mitotic spindle.

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**Formulation:** This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide at 0.5 mg/ml. **Precaution:** Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.

**Purification:** The antibody was purified by protein G affinity chromatography.

**Modification:** Phosphorylation (S738)

**Reactivity:** Human

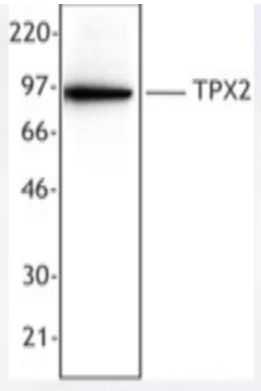
**Applications:** WB, IHC, IF

**Recommended Usage:** Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µg antibody per 5 ml antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

**Storage & Stability:** The antibody solution should be stored undiluted at 4 °C.

**Interaction:** Interacts with a large number of proteins including serine/threonine protein kinase 6, ribosomal protein 6, Bop-1,α-tubulin, and nucleolin among others.

MOLT-4 nuclear extracts were resolved by electrophoresis, transferred to nitrocellulose and probed with monoclonal anti-TPX2 (clone 18D5) antibody. Proteins were visualized using a goat anti-mouse secondary conjugated to HRP and a chemiluminescence detection system.

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