

TPX2 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Mk	Endogenous	100	Rabbit	#Q9ULW0	22974

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

TPX2 Antibody recognizes endogenous levels of total TPX2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys420 of human TPX2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The Ras family small GTPase Ran is involved in nuclear envelope formation, assembly of the mitotic spindle, and nuclear transport (1,2). TPX2, a target of active Ran (RanGTP), is a microtubule nucleating protein. TPX2 is inactive when bound to nuclear importin-alpha. RanGTP activity disrupts this interaction, relieving inhibition of TPX2 (3). TPX2 binding activates Aurora A kinase and promotes its localization to the mitotic spindle (4,5). DNA damage in mitosis leads to loss of interaction between Aurora A and TPX2 and inactivation of Aurora A kinase (6). TPX2 is highly expressed in pancreatic cancer cells, and knockdown of TPX2 expression in these cells is associated with increased sensitivity to paclitaxel (7).

Background References

1. Quimby, B.B. and Dasso, M. (2003) *Curr Opin Cell Biol* 15, 338-44.
2. Hetzer, M. et al. (2002) *Nat Cell Biol* 4, E177-84.
3. Gruss, O.J. and Vernos, I. (2004) *J Cell Biol* 166, 949-55.
4. Kufer, T.A. et al. (2002) *J Cell Biol* 158, 617-23.
5. Bayliss, R. et al. (2004) *Cell Cycle* 3, 404-7.
6. Bhatia, P. et al. (2010) *Cell Cycle* 9, 4592-9.
7. Warner, S.L. et al. (2009) *Clin Cancer Res* 15, 6519-28.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **Mk:** Monkey

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