

#8559 Store at -20°C

## TPX2 Antibody



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

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

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	TPX2 Antibody recognizes endogenous levels of total TPX2 protein.	
<b>Source / Purification</b>	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.	
<b>Background</b>	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-α. 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).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Quimby, B.B. and Dasso, M. (2003) <i>Curr Opin Cell Biol</i> 15, 338-44.</li> <li>2. Hetzer, M. et al. (2002) <i>Nat Cell Biol</i> 4, E177-84.</li> <li>3. Gruss, O.J. and Vernos, I. (2004) <i>J Cell Biol</i> 166, 949-55.</li> <li>4. Kufer, T.A. et al. (2002) <i>J Cell Biol</i> 158, 617-23.</li> <li>5. Bayliss, R. et al. (2004) <i>Cell Cycle</i> 3, 404-7.</li> <li>6. Bhatia, P. et al. (2010) <i>Cell Cycle</i> 9, 4592-9.</li> <li>7. Warner, S.L. et al. (2009) <i>Clin Cancer Res</i> 15, 6519-28.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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